Attorney's Docket No. 005220.P004 Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:	
David D. Faraldo II	Examiner: Leroux, Etienne Pierre
Application No.: 10/020,123	Art Group: 2161
Filed: October 30, 2001	
For: ALERT MANAGEMENT DATA INFRASTRUCTURE AND CONFIGURATION GENERATOR	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. § 1.131

I, David D. Faraldo II, declare the following:

1. I am an inventor of the above identified patent application.

2. I have reviewed the application, including the claims of the application, and I have also reviewed a copy of the current claims which are pending (a copy of which is attached as Exhibit A).

3. The declaration made herein is to establish reduction to practice of the invention prior to October 19, 2000, which is the effective filing date of the U.S. Patent Number 7,069,309.

4. The claimed invention was implemented prior to October 19, 2000. Hence, the claimed invention was reduced to practice prior to October 19, 2000.

5. Exhibit B attached herewith is a title page of a Product Requirements Document (PRD) for NOCpulse Internet Operational Support Service, dated August 30, 2000, i.e., prior to October 19, 2000. The PRD is an internal document that describes the NOCpulse service incorporating the Telalert system which is the subject matter of the above identified patent application.

6. Exhibit C attached herewith includes page 10 of the PRD, stating that the Telalert system has been integrated into the NOCpulse service. Page 10 describes the Telalert system that provides the functionality of the presently claimed invention. As stated above, the PRD is dated prior to October 19, 2000.

7. Based on the above description and as is evident from the attached exhibits, the reduction to practice of the subject matter described in the present application was prior to October 19, 2000.

9. I declare, to the best of my knowledge, that all statements made in this document are true, and that all statements made on the information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under § 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-identified patent application or any patent issued thereon.

Dated: 2007-10-11

Name: David D. Faraldo II

Exhibit A

IN THE CLAIMS

1. A computer-implemented method comprising:

validating configuration information specified by a user;

storing the configuration information in a database;

extracting at least a subset of the configuration information from the database based on an extraction parameter identifying one of a plurality of business sites; and

generating a text-based configuration file containing the extracted configuration information.

2. The method of claim 1 wherein the configuration information includes configuration keyword information recognizable by a messaging application.

3. The method of claim 1 wherein the database is a relational database.

4. Canceled.

5. The method of claim 1 further comprising:

configuring a messaging application using the configuration file.

6. The method of claim 1 further comprising periodically generating additional text-based configuration files according to a schedule.

7. The method of claim 1 wherein the database includes configuration information for the plurality of business sites across a plurality of networks.

8. The method of claim 1 wherein the configuration information is used by at least one messaging application to transmit a message to a destination.

9. The method of claim 1 wherein the configuration information includes a contact.

10. The method of claim 1 wherein the configuration information includes a contact method.

11. The method of claim 1 wherein the configuration information includes a method type.

12. The method of claim 1 wherein the configuration information includes a contact group.

13. The method of claim 1 wherein the configuration information includes a contact group member.

14. The method of claim 1 wherein the configuration information includes a schedule.

15. The method of claim 1 wherein the configuration information includes a strategy.

16. The method of claim 1 wherein the configuration information includes a pager type.

17. The method of claim 1 further comprising: creating at least one include file for a plurality of sections within the configuration file.

18. The method of claim 1 further comprising:
compiling the configuration file into a compiled file at a later time.

19. The method of claim 1 further comprising:
updating the configuration information stored in the database through a portal.

20. The method of claim 1 wherein the extracting is performed over a secure communication pathway.

21. A machine-readable medium that provides instructions, which when executed by a processor, cause said processor to perform a method comprising:
validating configuration information specified by a user;
storing the configuration information in a database;
extracting at least a subset of the configuration information from the database based on an extraction parameter identifying one of a plurality of business sites; and
generating at least one text-based configuration file containing the extracted configuration information.

22. The machine-readable medium of claim 21, wherein the configuration information includes configuration keyword information recognizable by a messaging application.

23. The machine-readable medium of claim 21, wherein the database is a relational database.

24. Canceled.

25. The machine-readable medium of claim 21, wherein the method further comprises configuring a messaging application using the configuration file.

26. The machine-readable medium of claim 21, wherein the generating of the text-based configuration file is performed periodically according to a schedule.

27. The machine-readable medium of claim 21, wherein the database includes configuration information for the plurality of business sites across a plurality of networks.

28. The machine-readable medium of claim 21, wherein the configuration information is used by at least one messaging application to transmit a message to a destination.

29. The machine-readable medium of claim 21, wherein the configuration information includes a set of one or more contacts, contact methods, method types, contact groups, contact group members, schedules, strategies, and pager type.

30. The machine-readable medium of claim 21, wherein the method further comprises: creating at least one include file for a plurality of sections within the configuration file.

31. The machine-readable medium of claim 21, wherein the method further comprises:

compiling the configuration file into a compiled file at a later time.

32. The machine-readable medium of claim 21, wherein the method further comprises:

updating the configuration information stored in the database through a portal.

33. The machine-readable medium of claim 21, wherein the receiving is performed over a secure communication pathway.

34. An apparatus comprising:

a database, the database to store configuration information specified by a user; and

a configuration generator, the configuration generator to validate the configuration information to be saved in the database, to extract at least a subset of the configuration information over a communication pathway from the database based on an extraction parameter identifying one of a plurality of business sites, and to generate at least one text-based configuration file including the extracted configuration information.

35. The apparatus of claim 34, further comprising:

a portal, the portal to provide access to a user to update the configuration information.

36. The apparatus of claim 34, wherein the configuration information includes configuration keyword information recognizable by a messaging application.

37. The apparatus of claim 34, wherein the configuration information includes a set of one or more contacts, contact methods, method types, contact groups, contact group members, schedules, strategies, and pager type.

38. The apparatus of claim 34, wherein the database is a relational database.

39. Canceled.

40. The apparatus of claim 34, further comprising:
a compiler to generate a binary configuration file after generation of the configuration file.

41. The apparatus of claim 40, wherein the generation of the binary configuration file is executed from a scheduling tool.

42. The apparatus of claim 41, wherein the scheduling tool is at least one from a group consisting of a windows scheduler or a unix cron.

43. The apparatus of claim 34, wherein the configuration generator is further to generate at least one include file for a plurality of sections within the configuration file.

44. The apparatus of claim 34, wherein the communication pathway is a secure communication pathway.

45. An apparatus comprising:

a storage device, the storage device to store configuration information specified by a user; and

a processor coupled with the storage device over a communications pathway, the processor to validate the configuration information to be saved in a database, to extract at least a subset of the configuration information from the database based on an extraction parameter identifying one of a plurality of business sites, and to generate at least one text-based configuration file including the extracted configuration information.

46. The apparatus of claim 45, wherein the configuration information includes configuration keyword information recognizable by a messaging application.

47. The apparatus of claim 45, wherein the configuration information includes a set of one or more contacts, contact methods, contact groups, schedules, strategies, and pager type.

48. The apparatus of claim 45, wherein the storage device is a relational database.

49. Canceled.

50. The apparatus of claim 45, further comprising:

a compiler to generate a binary configuration file after generation of the configuration file.

51. The apparatus of claim 50, wherein the generation of the binary configuration file is executed from a scheduling tool.

52. The apparatus of claim 51, wherein the scheduling tool is one from a group consisting of a windows scheduler or a unix cron.

53. The apparatus of claim 45, wherein the processor is further to generate at least one include file for a plurality of sections within the configuration file.

54. The apparatus of claim 45, wherein the communication pathway is a secure communications pathway.

55-56. (Not Entered)

57. (Previously Presented) The method of claim 7 wherein the configuration information extracted from the database is specific to one of the plurality of business sites.

58. (Previously Presented) The method of claim 1 wherein validating configuration information comprises:

performing at least one of a referential check, a value validation check and a typographical error check.

Exhibit B

NOCpulse

Draft Version Only

NOCpulse Internet Operational Support Service Product Requirements Document

Draft Version 8.30.00

Escalations

The notification component is an automated system that escalates notifications based on the following configurable parameters:

- Time delay between notification and acknowledgement
- Severity of problem for which the notification is being sent
- Notification schedules for onstaff administrators

If a notification goes unacknowledged for a period of time, that notification will be resent to the next contact on the escalation tree. The parameters for escalations and the contact lists are configurable by the customer. NOCpulse has also implemented a schedule interface to allow schedule rotations to be entered into the system. Notifications are automated based on those schedules.

When a notification reaches a certain point, a trouble ticket will be opened to track and further escalate the issue.

Communication Channels

NOCpulse has integrated the Telamon Telalert system to handle notifications to customers. In the event of a breach of a threshold, NOCpulse notifies customers through the following communication channels:

- Email
- Phone (IVR)
- Pager

If a customer requires additional notification communication channels, Telalert supports notifications through command line destinations and electronic sign boards. These channels are not widely used in the industry at this time, however. Though, the command line destination does allow for automation of processes for which NOCpulse and the customer write scritps that are triggered by certain notifications. Cool feature!

Detailed Notification Specifications:

<u>Notification Configuration Interface Specifications</u>
Threshold Specifications (What are the thresholds that can be set to trigger a notification)
Notification Specifications (What triggers a notification)
Telamon Specifications (What Telamon specs need to be doc'd)

24x7 Network Operations Center Services

The fourth core component of the NOCpulse IOSS is the staffed 24x7 Network Operations Center Services. NOCpulse maintains a 24x7 staff of NOC personnel to be on call for customer concerns and help desk issues. In addition, NOC personnel are monitoring customer sites real time and can assist in escalation issues and trouble ticketing in the event that customers do not acknowledge notifications.

NOCpulse

Draft Version Only

NOCpulse Internet Operational Support Service
Product Requirements Document

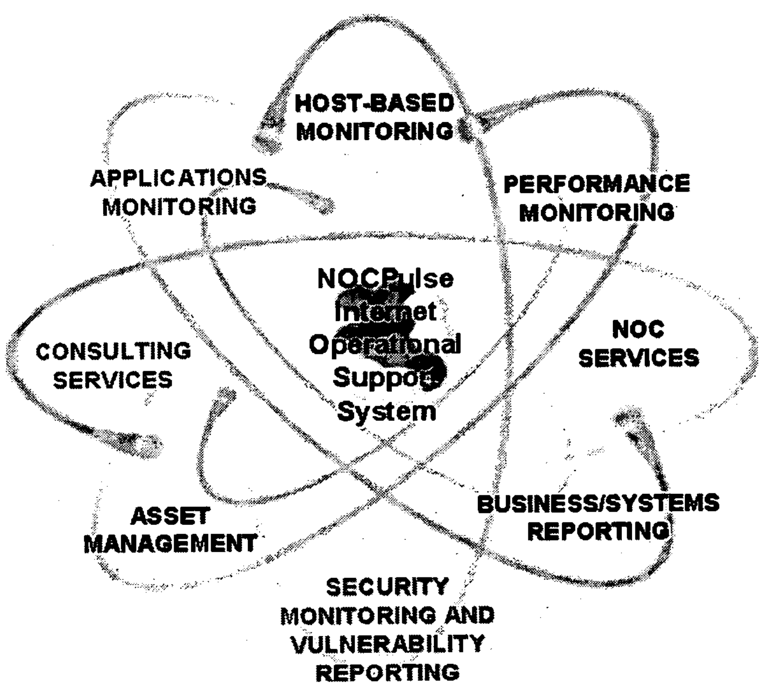
Draft Version 8.30.00

Draft Version Only

Internet Operational Support System Definition

This document defines NOCpulse's Internet Operational Support System (IOSS) in technical implementation detail. The IOSS is a complete set of Internet infrastructure management services built upon a scalable, automated, Web-based foundation. The goal of the IOSS is to significantly reduce the pain points of managing and supporting business critical Internet infrastructure.

The following illustration depicts the fundamental Internet infrastructure management features of the IOSS. Features in black are currently under development in a project codenamed Cheyenne. Feature in grey will be developed after Cheyenne.



The Premise of the IOSS

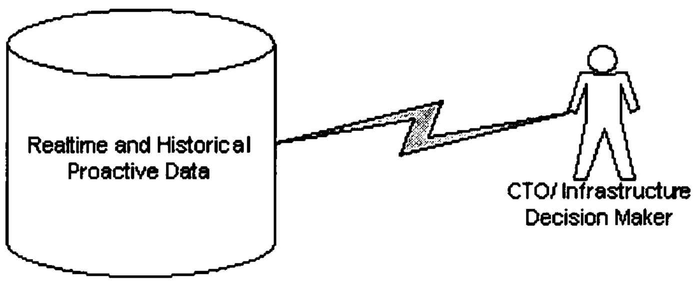
NOCpulse approaches the Internet infrastructure support problem from a holistic point of view. Rather than develop a point solution product for each infrastructure management component, NOCpulse analyzed the individual problems from the business critical point of view of supporting customers, including business partners, suppliers, and traditional customers. How does a business win and keep customers?

> To be successful on the Internet, businesses must meet three critical criteria: Uptime, Scalability and Performance.
>
> A site must be up and operational 24x7. This is mandatory. If the site is down, customers will go to a competitor.

Scalability and performance also retains or diverts customers. If a site is inaccessible during peak hours or a page takes more than 8 seconds to download, customers will go to a competitor.

NOCpulse identified that proactive information is the most useful tool that empowers a business to meet these major Internet infrastructure requirements.

Proactive information provides for informed and rational capital expenditures, capacity planning and administrative support hiring decisions. Without proactive knowledge, administrative teams are often in a fire-fighting mode, reacting to the latest hardware failure or run out in capacity.



However, obtaining proactive and **meaningful** data tends to be one of the most significant pain points of supporting an Internet infrastructure.

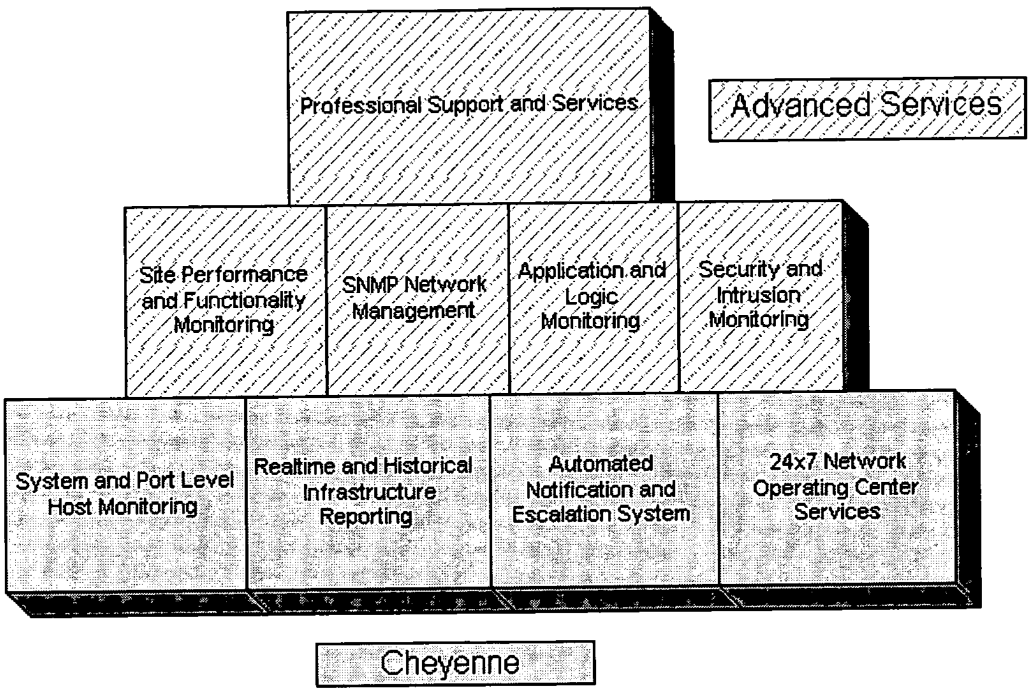
The goal of the NOCpulse IOSS is to reduce the operational pain-points of managing business-critical Internet infrastructure through the use of scalable, Web access to proactive infrastructure information.

NOCpulse

Cheyenne

The first project phase of NOCpulse's Internet Operational Support System is codenamed Cheyenne. Cheyenne is a combination of the following components:

- A foundation layer consisting of automated monitoring, reporting, notification and NOC services.
- An advanced services layers consisting of application and performance monitoring, and future services that sit atop the foundation layer.



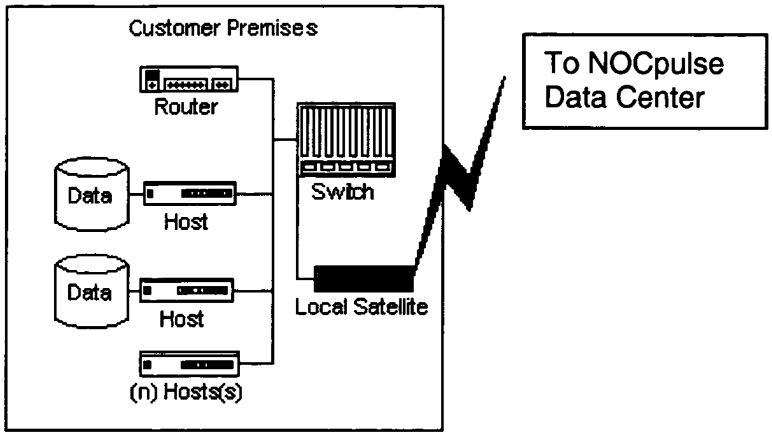
The remaining focus of this document details the foundation components of the IOSS platform, which is pictured above in solid grey. Some discussion will occur about the Advanced Services, but most of these services are outside the scope of version 1.

System and Port Level Host Monitoring

The first component of the IOSS platform being developed in Cheyenne is the System and Port Level Host Monitoring, more easily referred to as Host-Based Monitoring. Host based monitoring captures pertinent health and status information at the server or device level. This information serves as the basis for all reports that a customer can generate.

In addition, thresholds can be set on the data being returned. Threshold exceptions feed into the automated notification component of Cheyenne, triggering alerts that feed up a customer configurable escalation path. Once configured, escalations happen automatically based on the time limits and settings entered by the customer.

The host data is gathered through a Linux box that is plugged into the Customer's network through a subnet switch. Access to each host machine is achieved through an SSH agent configured on a non-priveleged port. That being a port number above 1024. The following illustration depicts the basic integration of a NOCpulse Scout with a customer's Internet infrastructure.



Data collected by the Scout is sent through the customer's network from a VPN agent installed on the Scout to a VPN client at the NOCpulse data center. The data is collected and stored at the data center for the reporting and trending functionality provided through the Customer Portal.

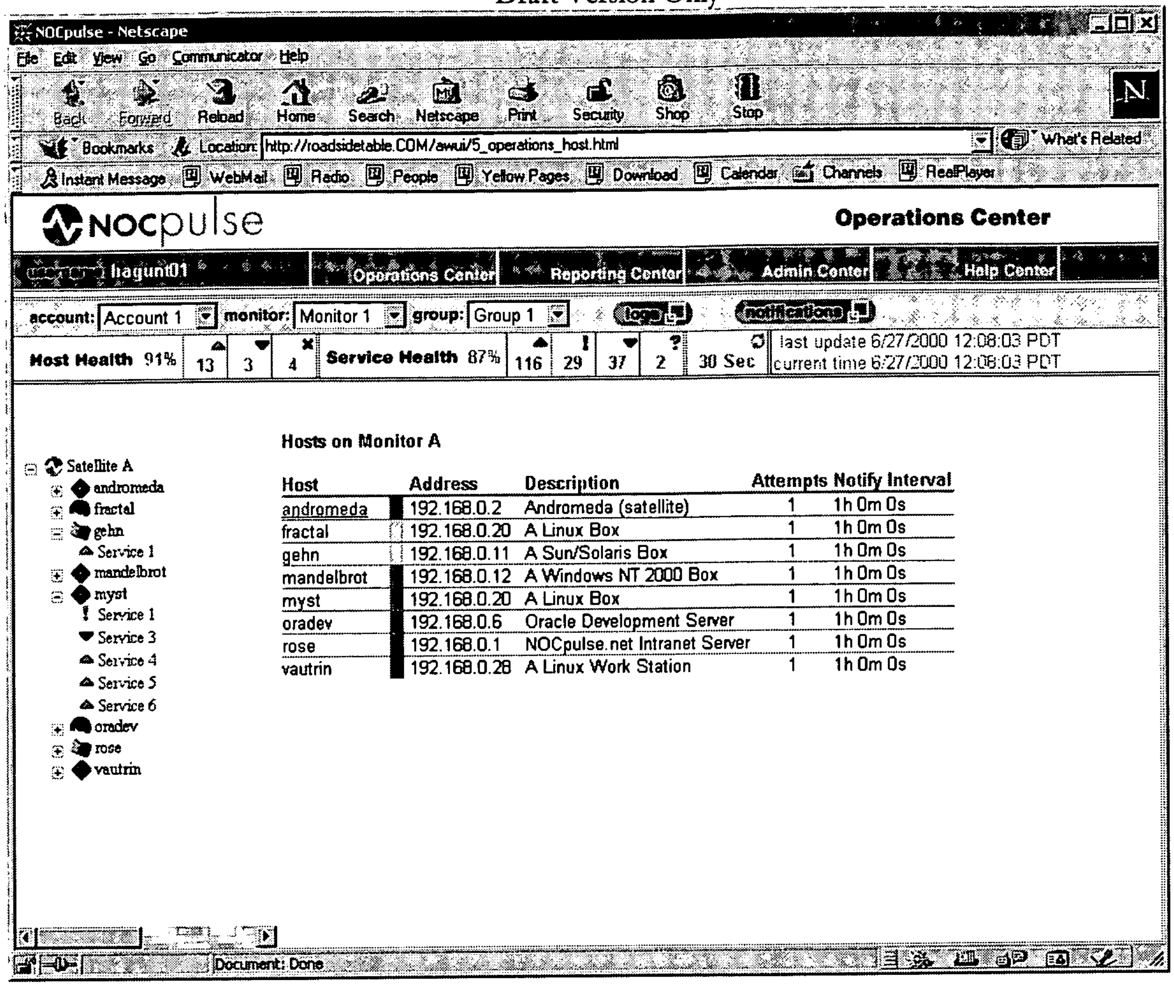
Detailed Host Monitoring Specifications:
Monitoring Hardware Specifications
Monitoring Software Specifications
System Monitoring Specifications
Port Monitoring Specifications
Congifuration Interface Specifications
SSH Specifications
VPN Specifications
Database Specifications

Realtime and Historical Infrastructure Reporting

Realtime and historical reporting capabilities are provided to the Customer through the NOCpulse Command Center, a Web-based portal. Access to customer data is controlled by company name, username and password login. This customer login data is stored encrypted in the database, as oppossed to clear text passwords, and is centrally available to all components within the NOCpulse Command Center.

Realtime Reports

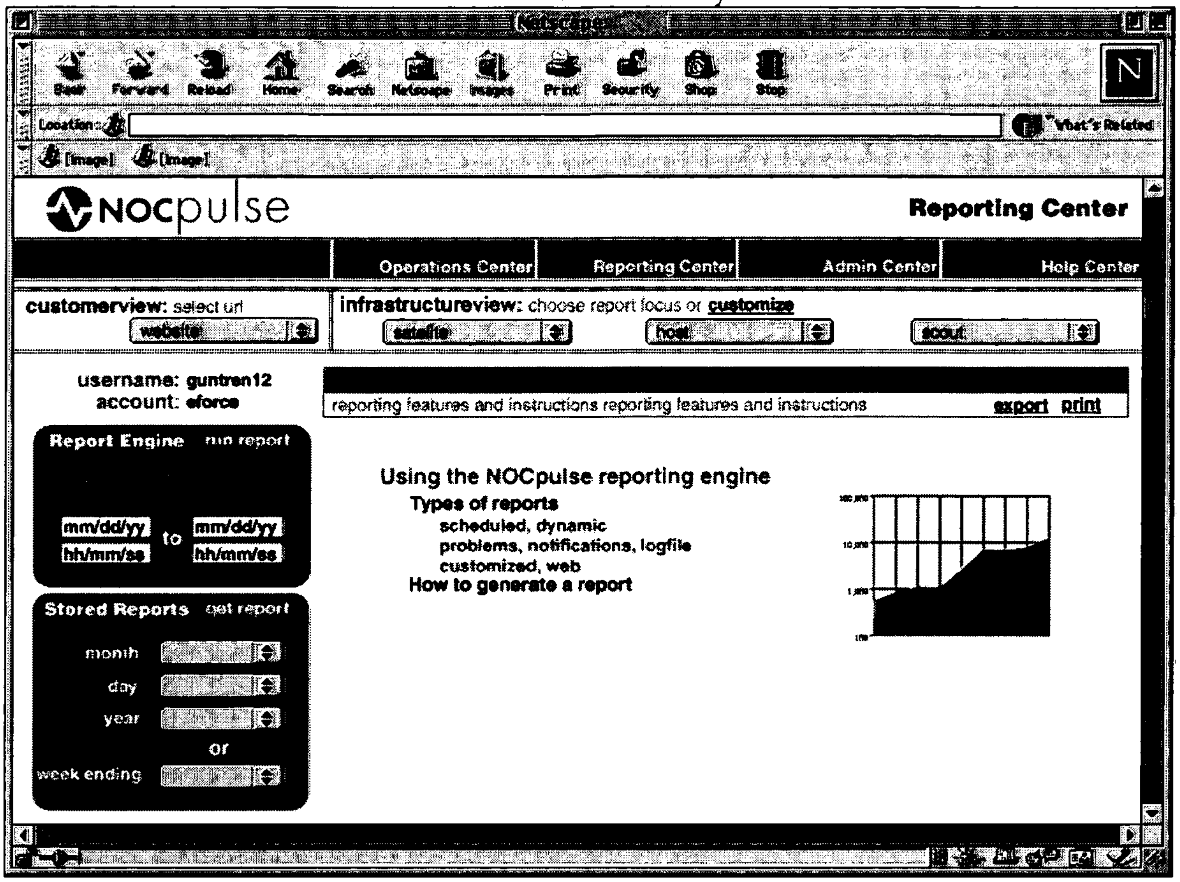
The realtime data views are host-based statistics of the infrastructure as it is currently operating. These same statistics are also being monitored by the NOC personnel. The following sreenshot shows what the right-now view of data looks like through the Command Center.



Host status is displayed in the Hosts table with a color bar of either green, yellow or red, which denotes ok, warning or critical, respectively. Details for each host can be accessed by clicking the host name in the Hosts table, or by opening the hierarchical host tree to the left of the Hosts table.

Historical Reports

Through the Command Center, the customer can generate historical reports of their infrastructure data. Most of these reports are stored as the result of a predetermined query, usually daily, weekly and montly, so as to minimize database access and computation time. However, Customers can take full advantage of the interface to build their own reports. The following screenshot depicts the interface that facilitates the reporting functionality.



This interface generates reports based on canned or customer configured queries. Canned, or pre-stored, queries exist for daily and weekly reports. These are stored in an Oracle database, but there are plans for storing this data in XML.

Alternately, customers can specify a query based on a specific infrastructure view (monitor, host, port; inside out monitoring) or a customer view (performance and functionality of website; ouside in monitoring). These parameters can be specified for any date range, as long as there was data collected for that range. We should check that an appropriate date is entered by the customer before running the query.

Detailed Reporting Specifications:

Reporting Interface Specifications
Reporting Specifications (Reports that can be run and why)
Database Table Specifications

Notification Services

An additional core component of the NOCpulse IOSS is the acknowledgement based notification and escalation system. This system automatically notifies a customer when a monitored host or service exceeds a threshold. Thresholds are preset out of the box, but

customers can configure each threshold through the configuration tab of the Customer Portal.

Escalations

The notification component is an automated system that escalates notifications based on the following configurable parameters:

- Time delay between notification and acknowledgement
- Severity of problem for which the notification is being sent
- Notification schedules for onstaff administrators

If a notification goes unacknowledged for a period of time, that notification will be resent to the next contact on the escalation tree. The parameters for escalations and the contact lists are configurable by the customer. NOCpulse has also implemented a schedule interface to allow schedule rotations to be entered into the system. Notifications are automated based on those schedules.

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monitoring customer sites real time and can assist in escalation issues and trouble ticketing in the event that customers do not acknowledge notifications.

Detailed NOC Specifications:

Support Staff Interface Specifications
Systems Specifications
Locations
Procedures

Customer Portal

Sprinkled thorughout. More.

Advanced Services

NOCpulse is planning several advanced services to plug in to the core architecture. These advanced services include:

- Site Performance and Functionality Testing
- Network Monitoring
- Application Monitoring
- Security Intrusion Monitoring

Site Performance and Network Monitoring will most likely be built in house. Application and Security Monitoring will most likely be provided through partnerships. More

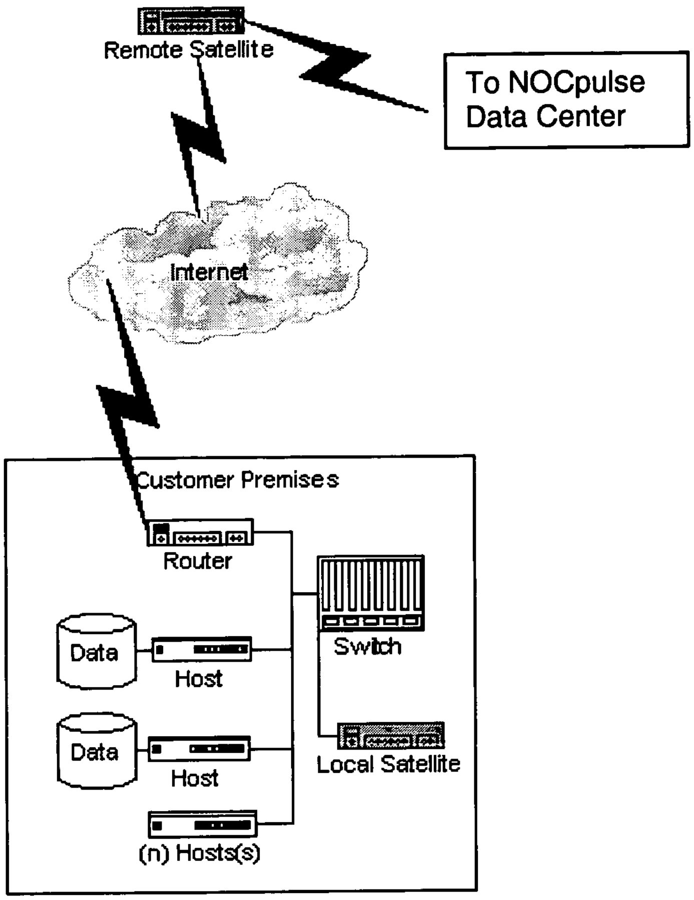
Site Performance and Functionality Testing

The first advanced service, which will be ready in version 1, Site Performance and Functionality Testing allows a customers website to be monitored from an Internet perspective.

For example, customer ACME sells widgets online. ACME's customers rely on the online site to supply the widgets, which are in turn used to build a product sold by that customer. If ACME's site, or a portion thereof, goes down, orders cannot be placed, and ACME's customer suffers large financial consequences. ACME, therefore, has an interest to know if and when any portion of their site ceases to work properly, from their customer's point of view.

NOCpulse's Site Performance and Functionality Testing advanced service provides customers with the ability to test their site from the customer point of view. The following

illustration depicts a Remote Satellite in relation to a customer's website.



Remote Satellite v. Local Satellite

A Remote Satellite differs significantly from a Local Satellite in the metrics it is programmed to retreive.

A Local Satellite collects system and port metrics of the physical Internet infrastructure from within the local area network.

A Remote Satellite collects the following Web server metrics through the Internet:

- Latency
- Total Time
- Throughput
- DNS Time
- Transfer Rate
- Connect Time

It can also check the returned content of a page, check subsidiary pages, make sure all links on a page work and test post requests and http authorizations.

Metric	Description
Latency	Set thresholds on Web server time from authentication to 1st byte received by the requestor.
Total Time	Set thresholds on the total time for a request to be served from DNS lookup to last object fetched.
Throughput	Advanced Feature: Set thresholds on measurement of Web server
DNS Time	Advanced Feature: Set thresholds on the time to resolve a host name to an IP address using Domain Name Service (DNS).
Transfer Rate	Advanced Feature: Set thresholds for the rate (bytes/sec) that data is sent from Web server 1st byte received to last byte received.
Connect Time	Advanced Feature:

NOTE: Advanced Features do not appear in the main configuration page, but behind an advanced button.

Satellite Hardware Specifications

The NOCpulse monitoring box has the following hardware specifications:

Vendor	Rackable
Dimensions	3.5"H x 17.5"W x 14"D 2U Telco rack mount
Processor	Pentium III 500+ Mhz (Single)
Memory	256 MB SDRAM
Hard Disk Drive	2 – 9 to 18GB SCSI Drives (Software Mirrored RAID 1)
Floppy Drives	1 - 48x CDROM 1 - 3.5" Disk Drive
Network Interface	2 - 10 BASE-T/100 BASE-TX Network Interface Cards (NIC)
Backup Interface	1 – Modem; Vedor to be established
Box Design	The front faceplate of the system will be of our design. Current plans are for a brightly colored front panel displaying the NOCpulse logo with flashing lights to simulate the pulse. If necessary, the system vendor's logo will also appear on the box. The goal of the design is that installed NOCpulse satellites will draw attention from customers sharing collocation facilities.

Software Specifications

What is Installed on NP Box	Description
Operating System	Red Hat Linux 6.2
Monitoring Software and plugins	Netsaint 0.0.5-2 with plugin package 1.2.8-4 check_ntstat.c (for NT info collection) plugin.ini (configuration file) check.py command.py plugin.py shell.py ssh.py
VPN Software	To Be Decided JM
RAID Software	Info coming JS
Additional Software	Tripwire 2.2.1

What is installed on Host box	Description
Unix Operating Systems	SecureShell (SSH) 1.2.28 on a non-priveleged port (> 1024)
NT Operating Systems	ntstat 0.5

Additional Software Settings

The following software settings are implemented to increase the security of the each Satellite box.

- All services in **inetd** are disabled
- No RPC services are running
- Process accounting is enabled
- Only two access accounts created:
  1. User account = **nocpulse** (for remote secure shell access to client boxes)
  2. Trusted Administration account = **admin**

SSH Specifications

This section discusses the technical implementation details of the SSH client for the customer's host machines.

VPN Specifications

This section discusses the technical implementation details of the VPN software installed on the Satellite and at the NOCpulse data center.

System Monitoring

What's monitored	Description
ICMP Echo (Ping)	Is the host up or not.
Disk Utilization	How much disk space is being used, how much is free.
CPU Utilization	% usage of the CPU
Load	
Memory Utilization	Amount usage in Kb of virtual memory.
Swap Space	Size of allocated swap space.
Number of Users	The number of connected users to the system.
Number of Processes	The number of processes running on the system.

System Thresholds

Monitored	Threshold Level	Default Threshold Values
Host Ping	Up Down Unreachable	None
Disk Utilization	OK Warning Critical Unknown	< 75% 75% 90%
CPU Utilization	OK Warning Critical Unknown	< 70% 70% 90%
Load	OK Warning Critical Unknown	< 0.8 0.8 1
Memory Utilization	OK Warning Critical Unknown	 0 0
Swap Space	OK Warning Critical Unknown	> 20% free 20% free 10% free
Number of Users	OK Warning Critical Unknown	< 10 users 10 users 20 users
Number of Processes	OK Warning Critical Unknown	< 400 processes 400 processes 700 processes

Port Monitoring

We are supporting all NetSaint port monitoring plugins. Some of these may never be used by a customer, but they are supported by our system.

The Port numbers listed below are typical configurations. Customers may have these and custom services assigned to different port numbers. Configurations can vary widely.

The Measurement	Port	Description
check_breeze	NP (no port)	Reports the signal strength (%) of Breezecom wireless equipment installed on host.
check_dig	NP	Tests host DNS using UNIX dig command, which is more informative than nslookup.
check_disk_smb	NP	Checks used disk space (%) of local file system and generates an alert if percentage is above one of the threshold values. (In Perl)
check_dns_resolution	NP	Obtains IP address for specified host/domain query using nslookup. Can specify optional DNS server, or default to specified /etc/resolv.conf.
check_ftp	21	Tests an FTP connection with the host and generates an alert if answer time is above threshold values.
check_hpjd	NP	Tests the STATUS of an HP printer with a JetDirect card. (Ucd-snmp must be installed on the computer running the plugin.)
check_http	80 (http) 443 (https)	Tests the HTTP service on the host. Tests normal (http) and secure (https) servers and generates an alert if answer time is above threshold values. Follows redirects, searches for strings and regular expressions, checks connection times, and reports on certificate expiration times.
check_imap	143	Tests the IMAP4 service on the specified host and generates an alert if answer time is above threshold

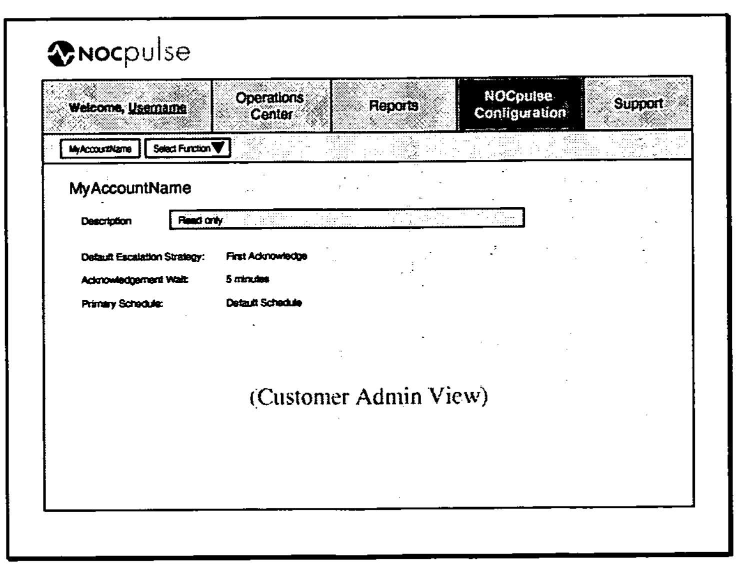
		values.
check_ircd	6667	Tests IRC daemon on host and returns an alert of number of users is above the threshold values.
check_nntp	119	Tests the network news service on host and generates an alert if answer time is above threshold values.
check_nothing	NP	
check_ntp	NP	Tests Network Time service and generates an alert when offset (s) is above threshold values.
check_oracle	NP	Tests remote or local TNS status and local Database status.
check_pop	110	Tests POP mail service on host and generates an alert if answer time is above threshold values.
check_postgresql	5432	Tests postgres SQL service on host and generates an alert if answer time is above threshold values.
check_real	554	Tests the IMAP4 service on the specified host (at port 554) and generates an alert if answer time is above threshold values.
check_rpc		Tests if a RPC service is registered and running on host using rpcinfo command.
check_smtp	25	Tests the SMTP mail service on host and generates an alert if answer time is above threshold values.
check_snmp_NEEDS_WORK		Not working yet. Will test snmp service on host and be used in conjunction with Network monitoring (V2).
check_ssh	22	Tests SSH service on host and generates an alert if request timesout.
check_tcp	Any	Tests TCP connections with host and generates an alert if answer time is

		above threshold values.
check_time	NP	Tests time port on host and generates an alert if answer time OR variance time is above threshold values.
check_udp	Any	Tests UDP connection on host and gnereates an alert if answer time is above threshold values.

Port Thresholds

Monitored	Threshold Level	Default State Change Values

NOCpulse Configuration Tab



(Customer Admin View)

Context (Permission: **Customer Admin**)

The Account form displays as the default screen when a customer with administrator-level permission clicks the NOCpulse Configuration tab. (The defaulot screen for a NOCpulse admin is shown on page 14.)

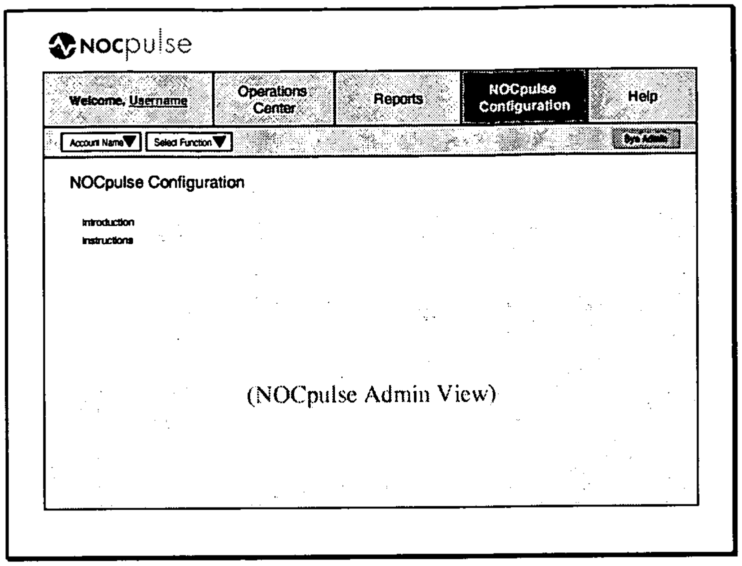
Contents

Application Nav Bar	Operations Center | Reports | NOCpulse Configuration | Support	
Local Navigation Bar	Account Name	Read-only display
	Select Function	Drop-down list
Work Area	Default display:	
	Account Description	Read-only display
	Default Escalation Strategy	Read-only display
	Acknowledgement Wait	Read-only display
	Primary Schedule	Read-only display

Local Nav Interaction

	Action	*Result*
1.	Select Configure Monitoring	Displays Monitor Configuration lists in Local Nav Bar
2.	Select Configure Notifications	Displays Notification Configuration lists in Local Nav Bar

NP Admin Configuration Menu



Context (Permission: **NP Admin**)

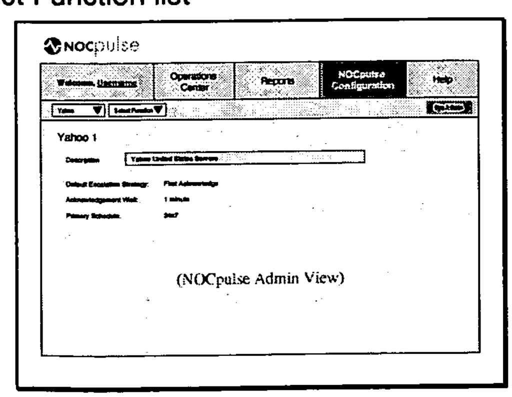
This displays as the default screen when a NOCpulse user with administrator-level permission clicks the NOCpulse Configuration tab. (The defaulot screen for a customer admin is shown on page 13.)

Contents

Application Nav Bar	Operations Center | Reports | NOCpulse Configuration | Support	
Local Navigation Bar	Select Account Select Function	Drop-down list Drop-down list
Work Area	Default display: Welcome/Instructions	Read-only display

Interaction

Action	*Result*
1. Select Account	Displays Account info in Main Account Form Enables Select Function list



2. Select Configure Monitoring Bar	Displays Monitor Configuration lists in Local Nav Displays editable Account Form
3. Select Configure Notifications	Displays Notification Configuration lists in Local Nav Bar Displays editable Account Form

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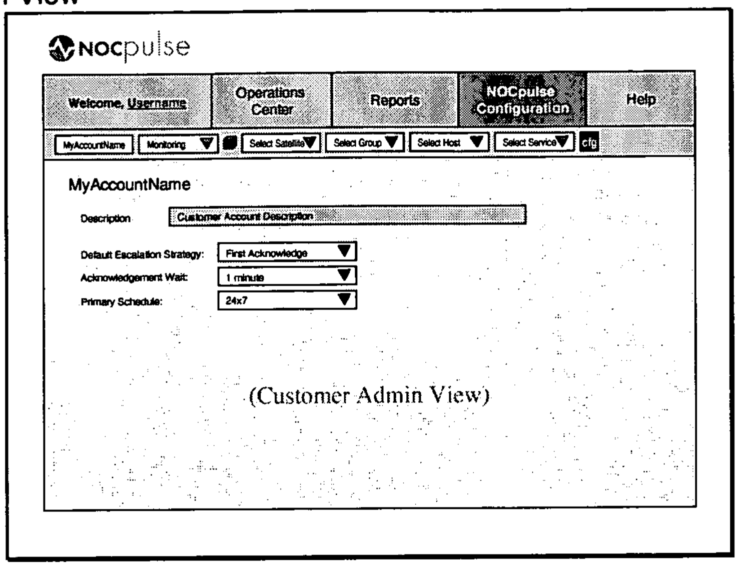
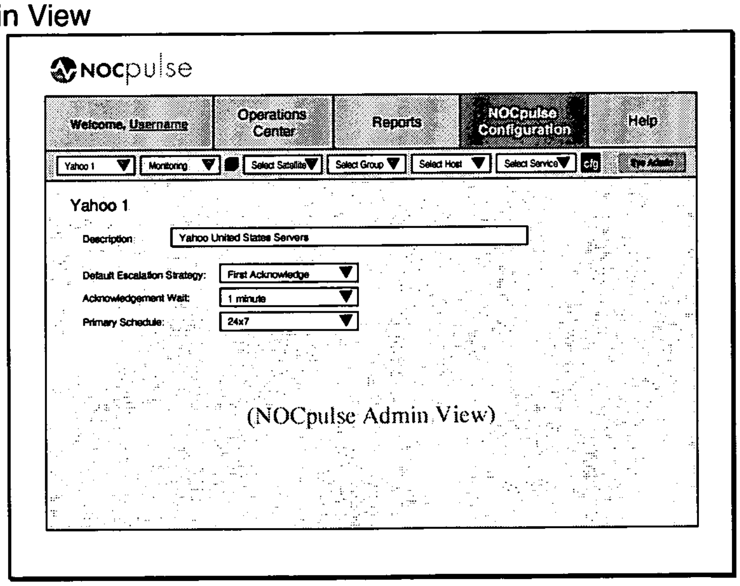
Configure Monitoring (Zope)

Customer Admin View



NOCpulse Admin View



Contents

Application Nav Bar	Operations Center | Reports | NOCpulse Configuration | Support	
Local Navigation Bar	Account Name	CUSTOMERS: read-only display NOCPULSE: selection list of all accounts
	Function selection list	Set to Configure Monitoring
	Monitor selection list	Filtered by account
	Group selection list	Filtered by monitor selection
	Host selection list	Filtered by monitor and/or group selection
	Scout selection list	Filtered by host selection

	Cfg button [Sys Admin]	**NP Admin only**
Page Header	Account name	read-only display
	Update confirmation message	appears after user clicks "Save Changes"
Form Fields	Account description	Editable for NOCpulse ONLY
	Default Escalation Strategy	Drop-down list
	Acknowledgement Wait	Drop-down list
	Primary Schedule	Drop-down list
	Save Changes	Submit button
Account Management	Time Period Definitions	text link or button
	Asset Management	text link or button

Navigation Interaction

Action	*Result*
1. Select monitor from list	Filters Group and Host selection lists Enables Group and Host selection lists NP ONLY: "Add Monitor" option displays blank form
2. Select group from list	Displays Group form with data for selected group Filters Host selection list "Add Group" option displays a blank form
3. Select host from list	Displays Host form with data for selected host Enables and filters Scout selection list "Add Host" option displays a blank form
4. Select scout from list	Displays Scout detail form with data for selected scout "Add Scout" option displays a blank form
5. Click cfg button	Generates new config file based on saved changes Displays confirmation dialog box

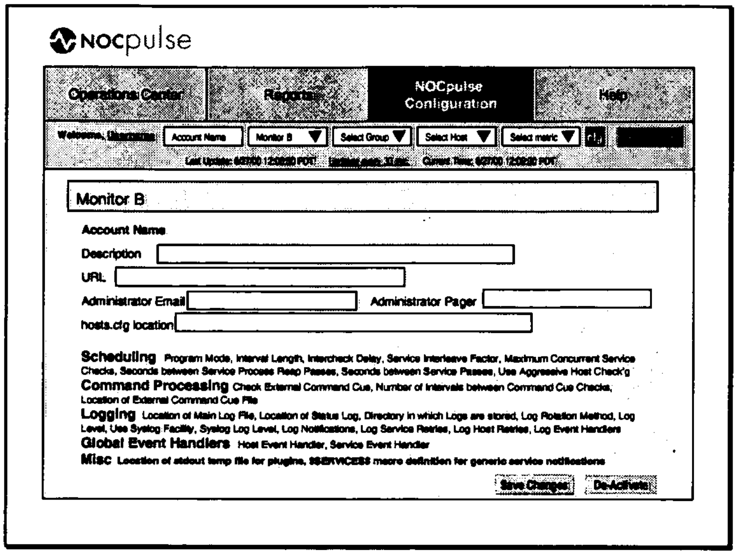
Account Form Interaction

Action	*Result*
1. NOCpulse ONLY: enter text in Description field	
2. Select Escalation Strategy	Determines when system regards notification as complete
3. Specify Acknowledgement Wait	Specifies how long to wait for acknowledgement before escalating notification to next level in strategy
4. Select Primary Schedule	Serves as default schedule for contacts and contact methods if no other schedule is specified at that level
5. Click Update Record	Saves any changes to the Account record Displays confirmation message in header

[Account Management Options]

	Action	*Result*
1.	Click Time Period Definitions	Displays Time Period Window
2.	Click Asset Management	Displays Asset Management Window

Monitor Administration Form



Context (Permission: **NP Admin only**)

This form displays in the work area when you select an option from the Monitor selection drop-down list. If you select a specific monitor, data for that monitor will populate the form; the button at the bottom of the form will read "Save Changes". Host Group, Host, and Scout selection lists will be filtered to show only those options appropriate for the selected monitor. If you select the "Add New Monitor" option, a blank form will display with a "Save" button at the bottom.

NOTE: Customer admins will not see this form. They will be able to select a specific monitor from the selection list (in order to filter Host and Scout lists with appropriate options), but they will not see an "Add New Monitor" option, and the Edit Monitor form will not display.

Contents

Header	Monitor Name Monitor Location Update Confirmation Message	
Account Form	Account Name	Read-only display of current account name
	Description	Editable text field
	Administrator contact info	Email & Pager text fields
	.cfg file location	Editable text field
	Scheduling	program mode, interval length, intercheck delay, service interleave factor, maximum concurrent service checks, seconds between service process reap passes, seconds between service passes, use aggressive host checking
	Command Processing	check external command cue, number of intervals between command cue checks, location of external command cue file

Logging	location of main log file, location of status log, directory in which logs are stored, log rotation method, log level, use syslog facility, syslog log level, log notifications, log service retries, log host retries, log event handlers
Global Event Handlers	host event handler, service event handler
Misc	location of stdout temp file for plugins $SERVICES$ macro definition for generic service notifications
Buttons	Save/Save Changes De-Activate

Monitor Form Interaction

	Action	*Result*
1.	Enter text, select options from lists	
2.	Click Save/Save Changes button	Saves new record or modifications and displays confirmation message in header
3.	Click De-Activate button	Displays confirmation message in header Buttons change to "Return to Account Form" and "Re-Activate"

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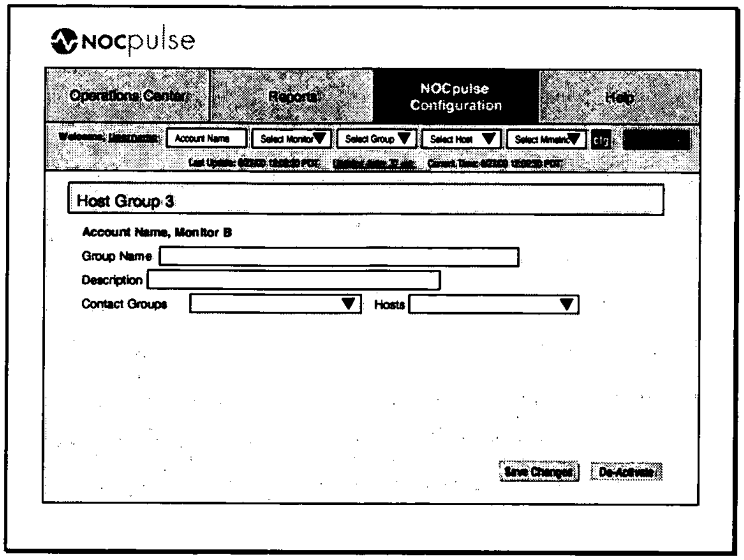
Group Administration Form



Context (Permission: **NP Admin, Customer Admin**)

This form displays in the work area when you select an option from the Group selection drop-down list. If you select a specific host group, data for that group will populate the form; the button at the bottom of the form will read "Save Changes". Host and Scout selection lists will be filtered to show only those options appropriate for the selected group. If you select the "Add New Group" option, a blank form will display with a "Save" button at the bottom.

Contents

Header	Group Name	
	Update Confirmation Message	
Group Form	Account Name	Read-only display of current account name
	Monitor Name	Read-only display of current monitor name
	Group Name	Editable text field
	Description	Editable text field
	Contact Groups	Selection list
	Hosts	Selection list
	Buttons	Save/Save Changes
		De-Activate

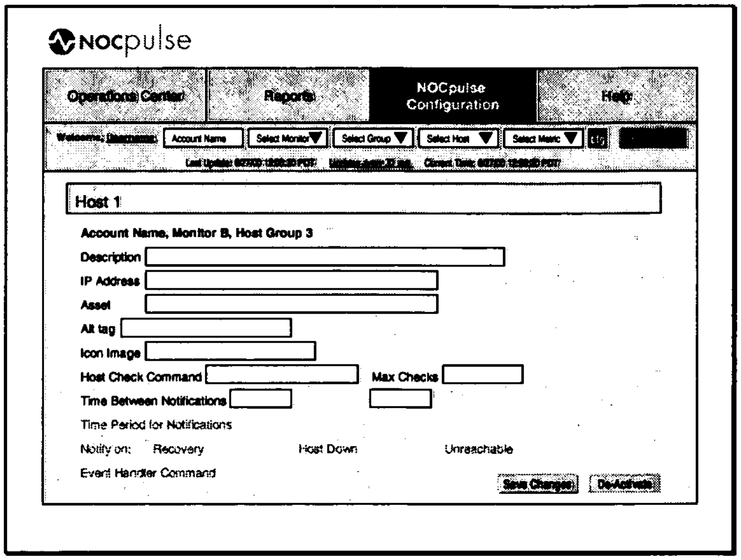
Group Form Interaction

	Action	*Result*
1.	Enter text	
2.	Select Contact Group(s) from list	Group(s) remain highlighted in list
3.	Select Host(s) from list	Host(s) remain highlighted in list
4.	Click Save/Save Changes button	Displays confirmation message in header

5. Click De-Activate button	Displays confirmation message in header Buttons change to "Return to Account Form" and "Re-Activate"

Draft Version Only

Host Administration Form



Context (Permission: **NP Admin, Customer Admin**)

This form displays in the work area when you select an option from the Host selection drop-down list. If you select a specific host, data for that host will populate the form and the Scout selection list will be filtered to show only those options appropriate for the selected host. If you select the "Add New Host" option, a blank form will display with a "Save" button at the bottom.

Contents

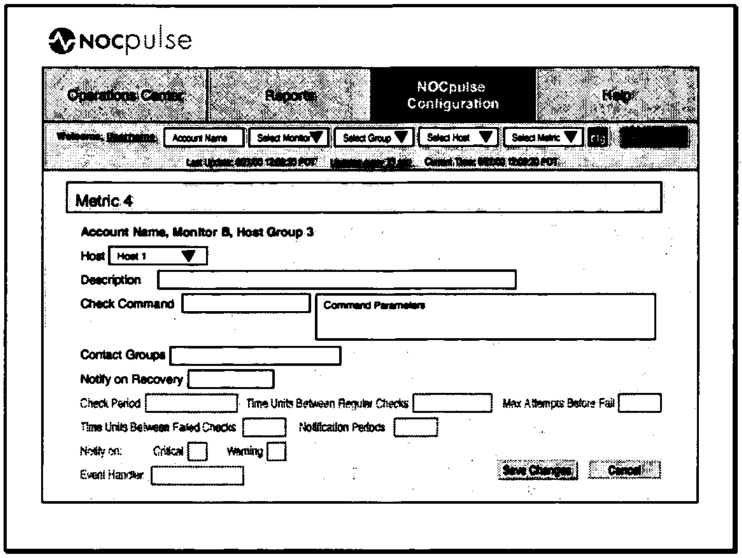
Header	Host Name	
	Update Confirmation Message	
Host Form	Account Name	Read-only display of current account name
	Monitor Name	CUSTOMER: Read-only display NP Admin: Selection list
	Group Name	Selection list displays current group
	Host Name	Editable text field
	Description	Editable text field
	IP Address or FQDN	Editable text field
	Asset	Editable text field
	Alt Tag	Editable text field
	Icon Image	Selection list
	Host Check Command	Selection list
	Max Checks	Editable text field
	Time Units btwn Notif.	Editable text field
	[Time Period for Notif.]	**NP Admin Only:** Selection list
	[Notify on Recov, Down, Un]	**NP Admin Only:** Selection list
	[Event Handler]	**NP Admin Only:** Selection list
	Buttons	Save/Save Changes | Delete Configuration

Host Form Interaction

Action	*Result*
1. Enter text, select options from lists	

2. Click Save Changes button	Displays confirmation message in header
3. Click De-Activate button	Displays confirmation message in header Buttons change to "Return to Account Form" and "Re-Activate"

Scouts Administration Form



Context (Permission: **NP Admin, Customer Admin**)

This form displays in the work area when you select an option from the Scout selection drop-down list. If you select a specific scout, data for that scout will populate the form. If you select the "Add New Scout" option, a blank form will display with a "Save" button at the bottom.

Contents

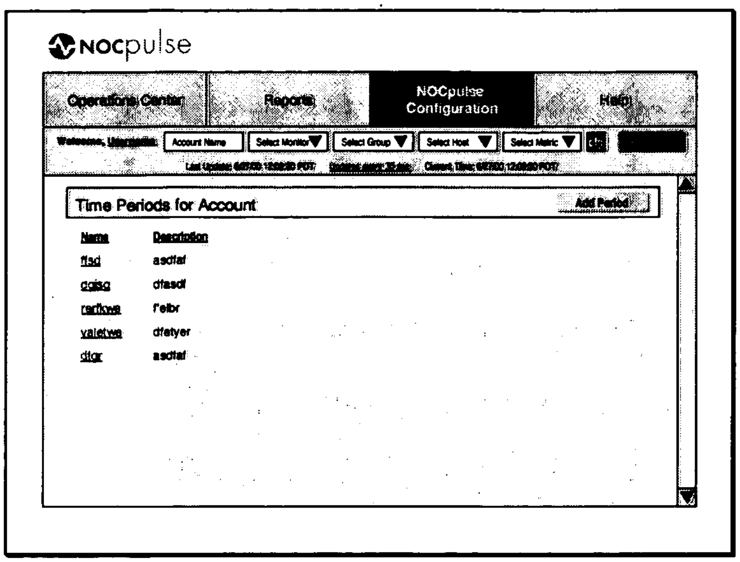
Header	Scout Name	
	Update Confirmation Message	
Scout Form	Account, Monitor, Group	Read-only display
	Host	Selection list
	Description	Editable text field
	Contact Groups	Selection list
	Notify on Recovery	Selection list
	Check Command	Selection list
	Parameters	dependent on selected command
	Check Period	Selection list
	Time Units btwn Reg Checks	Editable text field
	Max Attempts before Fail	Editable text field
	Time Units btwn Failed Chks	Editable text field
	Time Period for Notif.	Selection list
	Notify on Critical	Selection list
	Notify on Warning	Selection list
	Event Handler Command	Selection list
	Buttons	Save/Save Changes | De-Activate

Scout Form Interaction

Action	*Result*
1. Enter text, select options from lists	Modify record

2. Click Save Changes button	Displays confirmation message in header
3. Click De-Activate button	Displays confirmation message in header Buttons change to "Return to Account Form" and "Re-Activate"

Time Period List



Context (Permission: **NP Admin, Customer Admin**)

This list displays in the work area when you click the "Time Period Definitions" button on the Account screen.

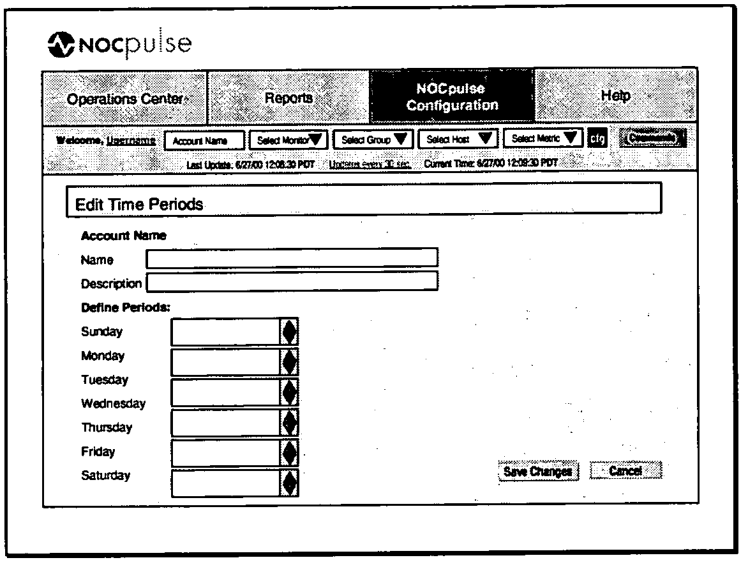
Contents

Header	Account Name Add Period button	
User List	Name Description	hyperlink read-only display

User List Interaction

Action	*Result*
1. Click Add Period button	Displays blank Time Period Form in the work area.
2. Click Name hyperlink	Displays Time Period Form in the work area with data for selected group

Time Period Form



Context (Permission: **NP Admin, Customer Admin**)

This form displays in the work area when you drill down on a time period hyperlink or click the "Add Period" button on the Time Period List header.

Contents

Header	Time Period Name Update Confirmation Message	
Time Period Form	Account Name	Read-only display
	Time Period Name	Editable text field
	Description	Editable text field
	Time Period Definitions	Editable text fields
	Buttons	Save/Save Changes | De-Activate

Time Period Form Interaction

Action	Result
1. Enter text	
2. Click Save button displayed in list	Returns to Time Period list with new group
3. Click Save Changes button	Displays confirmation message in header
4. Click De-Activate button	Displays confirmation message in header Buttons change to "Return to Time Period list" and "Re-Activate"

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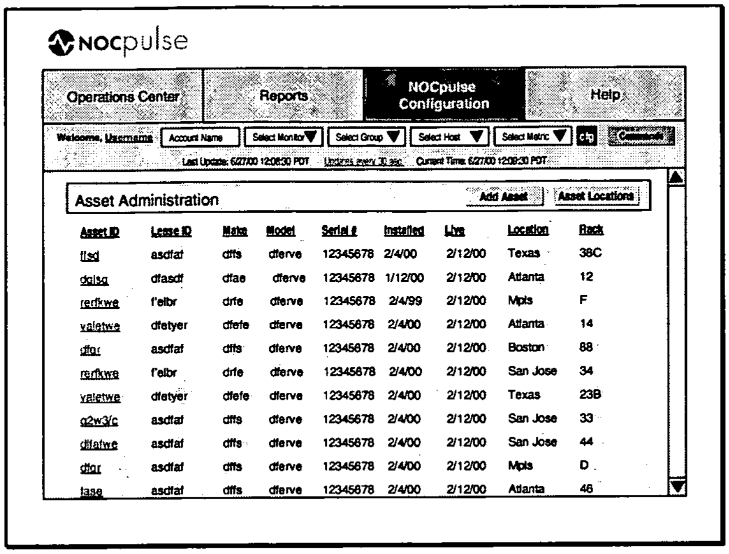
Asset List



Context (Permission: **NP Admin, Customer Admin**)

This list appears in the work area when you click the "Asset Management" button on the Account screen.

Contents

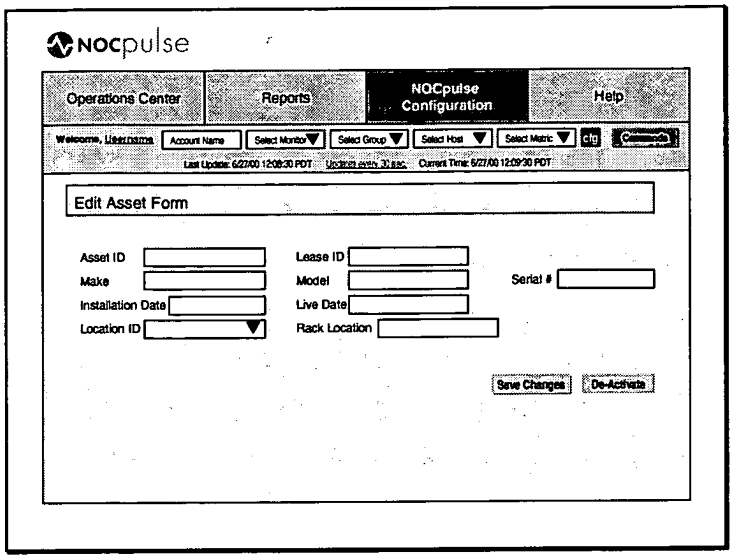
Header	Account Name	
	Add Asset button	
	[Asset Location button]	**NP Admin ONLY**
Asset List	Asset ID	hyperlink
	Lease ID	read-only display
	Make	read-only display
	Model	read-only display
	Serial Number	read-only display
	Installation Date	read-only display
	Live Date	read-only display
	Location ID	hyperlink [**NP Admin only**]
	Rack Location	read-only display

User List Interaction

Action	*Result*
1. Click Add Asset button	Displays blank Asset Form in the work area.
2. [Click Asset Location button] area	NP Admin ONLY: displays Asset Location list in work
3. Click Asset ID hyperlink	Displays Asset Form in the work area with data for selected asset

4. [Click Location ID hyperlink] NP Admin ONLY: displays Asset Location Form in the work area with data for the selected location

Asset Form



Context (Permission: **NP Admin, Customer Admin**)

This form displays in the work area when you drill down on an asset ID hyperlink or click the "Add Asset" button on the Asset List header.

Contents

Header	Account Name	
	Update Confirmation Message	
Asset Form	Asset ID	Editable text field
	Lease ID	Editable text field
	Make, Model, Serial #	Editable text fields
	Installation, Live Dates	Editable text fields
	Location ID	Selection list
	Rack Location	Editable text field
	Buttons	Save/Save Changes | De-Activate

Asset Form Interaction

Action	*Result*
1. Enter text	
2. Click Save button	Returns to Asset list with new asset displayed in list
3. Click Save Changes button	Displays confirmation message in header
4. Click De-Activate button	Displays confirmation message in header Buttons change to "Return to Asset List" and "Re-Activate"

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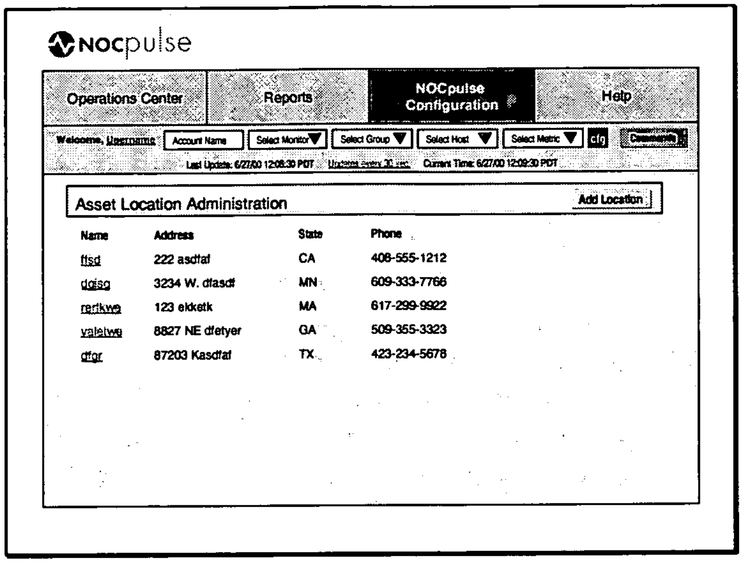
Asset Location List



Context (Permission: **NP Admin only**)

This list displays in the work area when a NOCpulse administrator clicks the Asset Location button in the Asset List header.

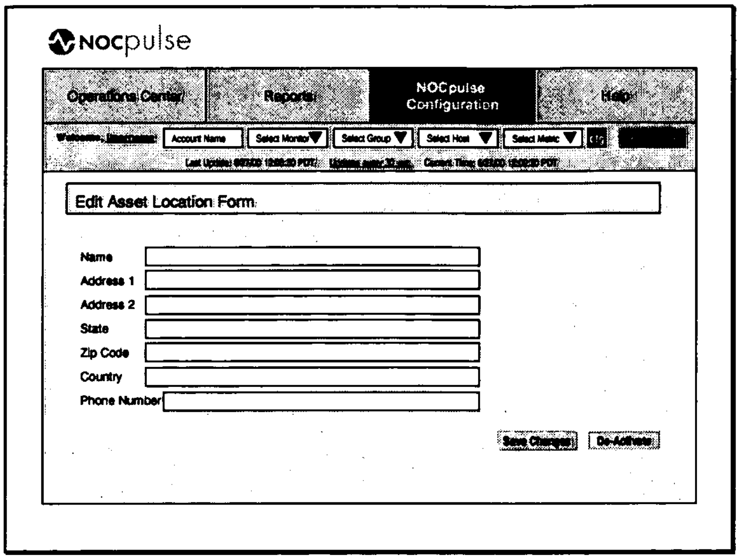
Contents

Header	Account Name	
	Page Heading	
	Add Location button	
Asset Location List	Location Name	hyperlink
	Address	read-only display
	State	read-only display
	Phone	read-only display

Asset Location List Interaction

Action	*Result*
1. Click Add Location button	Displays blank Asset Location form in work area
2. Click Location Name hyperlink	Displays Asset Location form with data for selected location

Asset Location Form



Context (Permission: **NP Admin**)

This form displays in the work area when you drill down on an asset location hyperlink or click the "Add Location" button on the Asset List header.

Contents

Header	Account Name	
	Update Confirmation Message	
Asset Location Form	Location Name	Editable text field
	Address 1	Editable text field
	Address 2	Editable text fields
	City	Editable text fields
	State	Selection list
	Zip Code	Editable text field
	Phone Number	Editable text field
	Buttons	Save/Save Changes | De-Activate

Asset Location Form Interaction

Action	*Result*
1. Enter text	
2. Click Save button	Returns to Asset Location List with new location displayed
3. Click Save Changes button	Displays confirmation message in header
4. Click De-Activate button	Displays confirmation message in header Buttons change to "Return to Asset List" and "Re-Activate"

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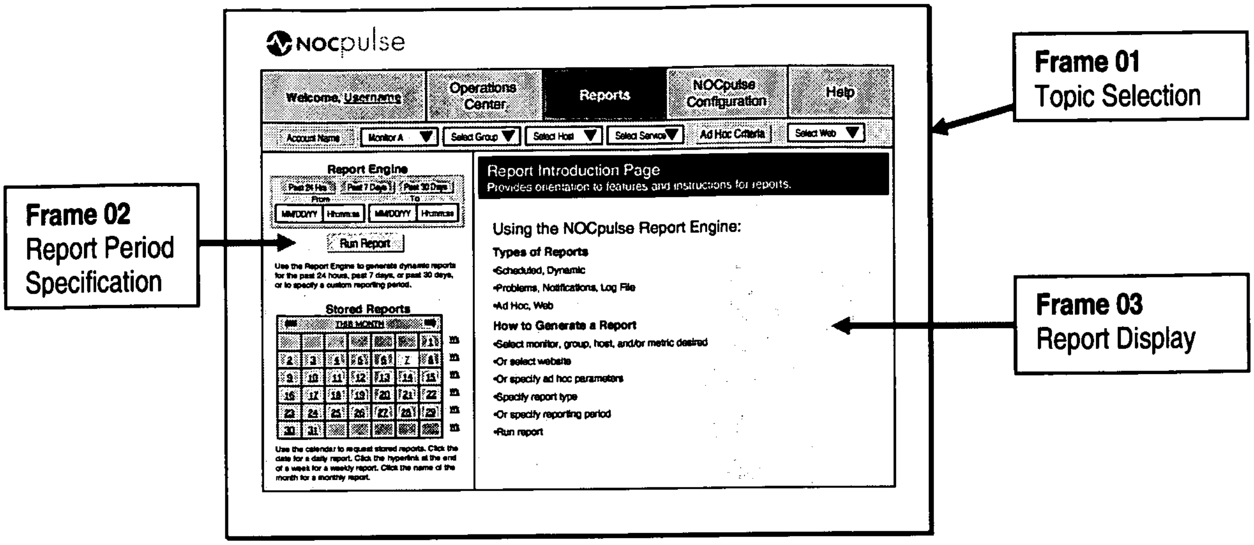
Reports Tab



Context

Authorized users can access the Reports module from anywhere in the system by clicking on the Reports tab on the Navigation Bar. The basic application interface consists of three principle components: a topic selection bar [Frame 01], a time period specification panel [Frame 02], and a report display panel [Frame 03].

The default view opens with an introduction/instruction message in the display panel.

Contents

Topic Selection Bar

Account Name	Read-only display
Monitor	Selection list
Select Group	Selection list, filtered by Monitor
Select Host	Selection list, filtered by Monitor/Group
Select Service	Selection list, filtered by Host selection
Ad Hoc Criteria button	Hyperlink to Ad Hoc Criteria form
Select Web	Selection list

Time Specification Panel

Report Engine	Past 24 hrs | Past 7 days | Past 30 days buttons Range Selector (defaults to Past 24 Hrs.) Format: DD/MM/YY hh/mm/ss Run Report (submit button)
Calendar Selector	Highlight indicates current date Arrows for month selection Hyperlinks to stored reports Hyperlinks for week selection
Time Spec instructions	Text

Report Display Panel

Header	Report Title, Date, Range
Data Display	Orientation/Instruction text

Selection Bar Interaction

	Action	*Result*
1.	Click Monitor selection list	Displays available Monitors Select a Monitor to enable Group and Host menus Group and Host options are filtered by Monitor selection
2.	Click Group selection list	Displays available Groups Select a Group to enable Service menu Host and Service options are filtered by Group selection
3.	Click Host selection list	Displays available Hosts Select a Host to enable Service menu Service options are filtered by Host selection
4.	Click Service selection list	Displays available Services Select a service to restrict the report to a specific service on a specific host
5.	Click Ad Hoc Criteria button	Displays Ad Hoc Criteria form in the Display Area
6.	Click Web selection list	Displays a list of URLs Select a URL for web trend analysis

Time Specification Panel

	Action	*Result*
•	Click Run Report button	Generates a report based on current topic selections and time parameter specifications (defaults to Past 24 Hrs) Displays requested report in Display Area
•	Enter Start/End parameters	Defines start/end dates and times for custom period Data format: MM/DD/YY hh:mm:ss Defaults to past 24 hours Report displays on clicking Run Report button *Dynamic Report message displays as report loads*
•	Click Past 24 Hrs button	Automatically populates Start/End parameter fields Starts 24 hours before current time
•	Click Past 7 Days button	Automatically populates Start/End parameter fields Starts 7 days before current time
•	Click Past 30 Days button	Automatically populates Start/End parameter fields Starts 30 days before current time
•	Click Month Selection arrows	Displays Next or Previous Month
•	Click Month hyperlink	Displays dynamic Month-to-date Report for current month or stored Monthly Report for historical months

	Dynamic Report message displays as Month-to-date report loads
• Click Date hyperlink	Displays dynamic Past 24 Hr Report for current day or stored Daily Report for historical dates *Dynamic Report message displays as dynamic report loads*
• Click Week hyperlink	Displays dynamic Week-to-Date Report for current week or stored Weekly Report for historical weeks *Dynamic Report message displays as Week-to-Date report loads*

Report Display Panel

Action	*Result*
• Click Export button	Exports data from report as CSV file
• Click Print button	Prints Report Display frame
• Read instructions	Select topic and time parameters for report

Issues

Calendar Widget	Resource requirement: 2 people x 2 weeks? Phase 1 Alternative in consideration (see next page)
Groups	Will groups be required? Will host list be unmanageable without groups? Maximum number of groups per monitor: 255
Services	Service list available when group is selected? Generic list of services or services listed by host? Backward filter: choose (generic) service to filter host list to show only host running selected service?

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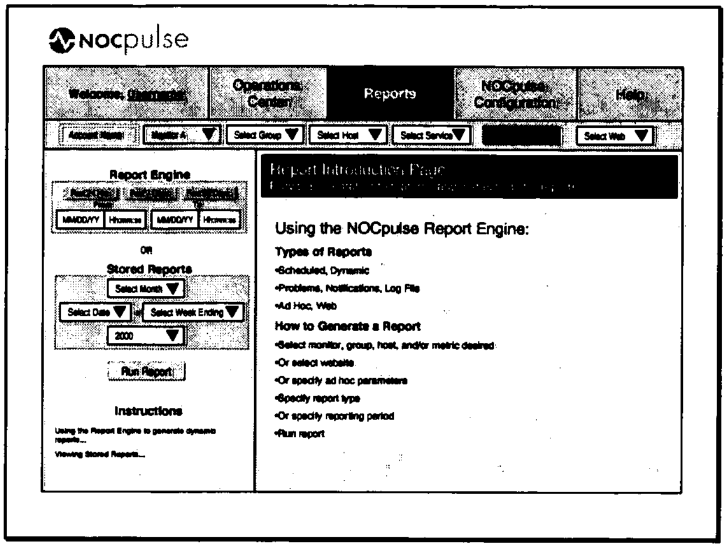
Alternate Time Specification Mechanism



Context

If the calendar widget proves to be outside the implementation scope of this phase, the following specification outlines an alternative structure for the time specification functionality.

Contents

Topic Selection Bar unchanged

Time Specification Panel

	Report Engine	Past 24 hrs | Past 7 days | Past 30 days buttons Range Selector (defaults to Past 24 Hrs.) Format: DD/MM/YY hh/mm/ss
	Stored Reports	Month Selection list Date Selection list (select date OR week) Week Selection list (select date OR week) Year Selection List (defaults to current year)
	Run Report button	Submit button
	Ad Hoc Report instructions	Text
	Specify Criteria button	Hyperlink to Ad Hoc Report form

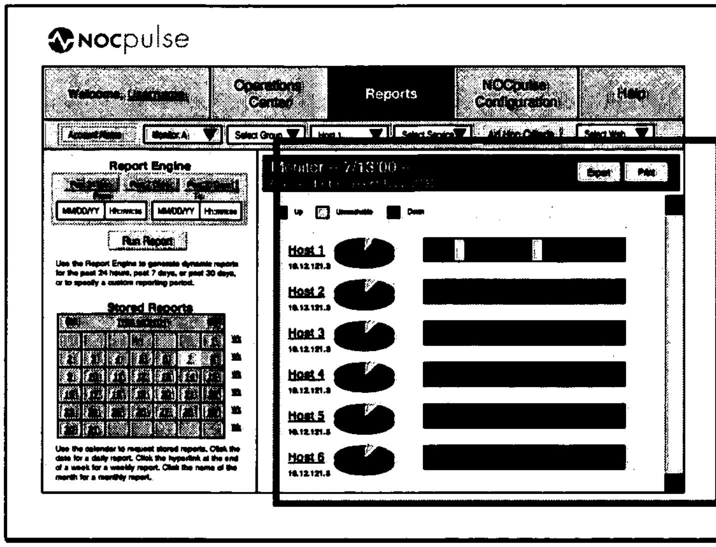
Time Specification Interaction

Action	*Result*

NOTE: User may choose either the Report Engine or the Stored Report Selector to specify time period

1. Click Period button	Displays past 24 hrs, past 7 days, or past 30 days in Range fields
2. Enter dates and/or times	Overrides default or current date/time settings
3. Select Month	Specifies month for report Filters Date and Week options by selected month
4. Select Date	(optional) Specifies date for report
5. Select Week Ending date	(optional) Specifies week for report
6. Select Year	Specifies year for report
7. Click Run Report button	Generates a report based on selected parameters.

Monitor Report



Monitor Report

Context

This report is not an eFORCE deliverable for this phase, but is included to illustrate the complete architecture and functionality of the interface. Until this report is available, the Monitor list will only serve to select the desired monitor and filter the Group and Host lists. The Run Report button and Stored Reports will remain inactive until a specific host is selected.

This report populates the display area when the user selects a Monitor from the drop-down list and
a) specifies a reporting period and clicks the "Run Report" button or
b) clicks a hyperlink for a stored report on the calendar selector.

Contents

Header	Monitor Name Date Report Period Export Button Print button	
Monitor Info	List of all Hosts on Monitor. For each Host:	
	Host Name	hyperlink displays Host Overview Report Alt tag defines status thresholds
	IP Address	
	Availability Pie Chart	Up/Down/Unreachable Alt tag displays percentage numbers for each status
	Status Over Time	Color-coded bar chart Alt tag displays start & end times for each segment

Draft Version Only

Header Interaction

Action	Result
NOTE: These functions are common to all report screens.	
1. Click Export button	Generates data file in CSV format
2. Click Print button	Prints current frame

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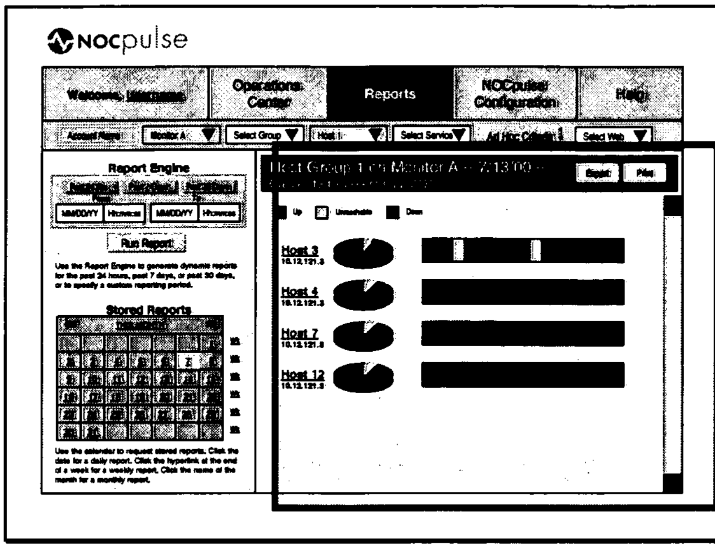
Host Group Report



Host Group Report

Context

This report is not an eFORCE deliverable for this phase, but is included to illustrate the complete architecture and functionality of the interface. Until this report is available, the Group list will only serve to select the desired group and filter the Host list. The Run Report button and Stored Reports will remain inactive until a specific host is selected.

This report populates the display area when the user selects a Host Group from the drop-down list and
a) specifies a reporting period and clicks the "Run Report" button or
b) clicks a hyperlink for a stored report on the calendar selector.

Contents

Header	Host Group Name	
	Monitor Name	
	Date	
	Report Period	
	Export button	
	Print button	
Group Info	List of Hosts in Group. For each host:	
	Host Name	hyperlinks to Host Overview Report Alt tag defines status thresholds
	Availability Pie Chart	Up/Down/Unreachable Alt tag displays percentage numbers for each status
	Status Over Time	Color-coded bar chart Alt tag displays start & end times for each segment

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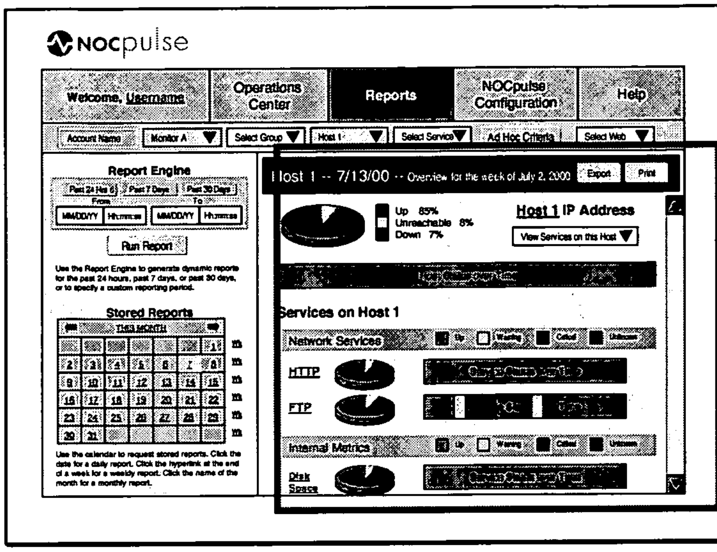
Host Overview Report



Host Overview Report

Context

This report populates the display area when the user selects a Host from the drop-down list and
a) specifies a reporting period and clicks the "Run Report" button or
b) clicks a hyperlink for a stored report on the calendar selector.

Contents

Header	Host Name, Date, Period, Export button, Print button	
Host Info	Host Name	hyperlink displays Host Detail Report Alt tag defines status threshholds
	IP Address	
	Availability Pie Chart	Up/Down/Unreachable Alt tag displays percentage numbers for each status
	Availability Table	Color key | Status | Percentage
	View Service Info	Selection list hyperlinks to anchors in service list
	Status Over Time	Color-coded bar chart Alt tag displays start & end times for each segment
Scout Info	*Scouts are organized into Network Services and Internal Metrics sub-categories*	
	Status Key	Defines color code for charts
	Service Name	hyperlink displays Service Detail Report Alt tag defines status threshholds

Availability Pie Chart	Up/Warning/Critical/Unknown Alt tag displays percentage numbers for each status
Status Over Time	Color-coded bar chart Alt tag displays start & end times for each segment

Header Interaction

Action	*Result*
NOTE: These functions are common to all report screens.	
1. Click Export button	Generates data file in CSV format
2. Click Print button	Prints current frame

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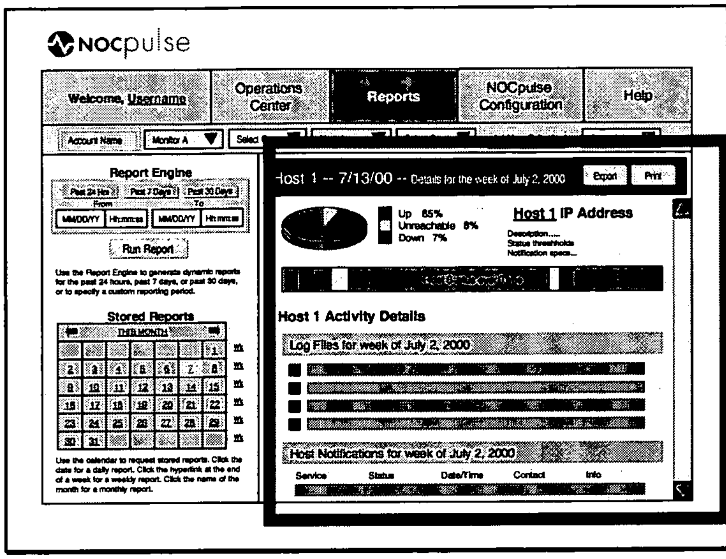
Host Detail Report



Host Detail Report

Context

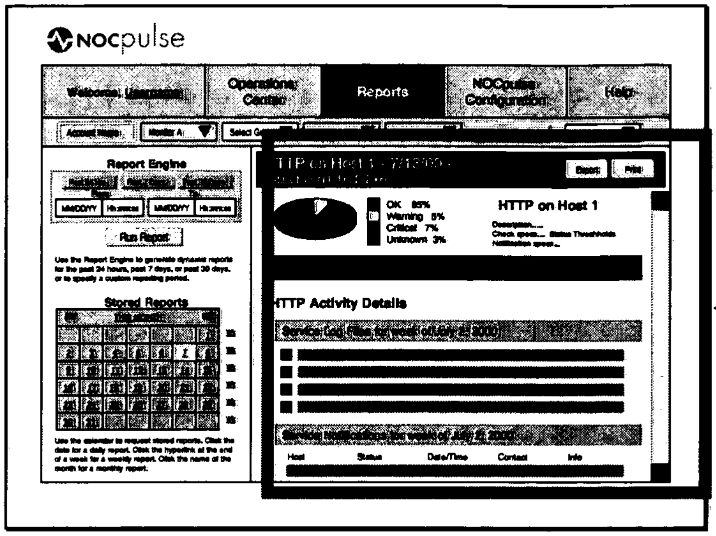
This report populates the Display Area when the user drills down on the Host Name hyperlink on the Host Overview Report.

Contents

Header	Host Name	
	Date	
	Report Period	
	Export button	
	Print button	
Host Info	Host Name	hyperlink displays Host Detail Report
	IP Address	
	Additional info	Description, Notification specifications Status threshold values
	Availability Pie Chart	Up/Down/Unreachable
	Availability Table	Color key | Status | Percentage
	Status Over Time	Color-coded bar chart
Activity Info	Host Log File	Log file for specified time period
	Host Notifications	Host notifications for specified period

Draft Version Only

Service Detail Report



Service Detail Report

Context

This report populates the Display Area when the user drills down on a Service Name hyperlink on the Host Overview Report or selects a Service from the Service selection list in the topic bar.

Contents

Header	Service Name	
	Date	
	Report Period	
	Export button	
	Print button	
Host Info	Service Name	
	Host Name	hyperlink displays Host Overview Report
	Additional info	Description, Check specifications, Status threshold values Notification specifications
	Availability Pie Chart	Up/Warning/Critical/Unknown Alt tag indicates time in each status?
	Availability Table	Color key | Status | Percentage | Time?
	Status Over Time	Color-coded bar chart
Activity Info	Service Log File	Service log for specified time period
	Service Notifications	Service notifications for specified period

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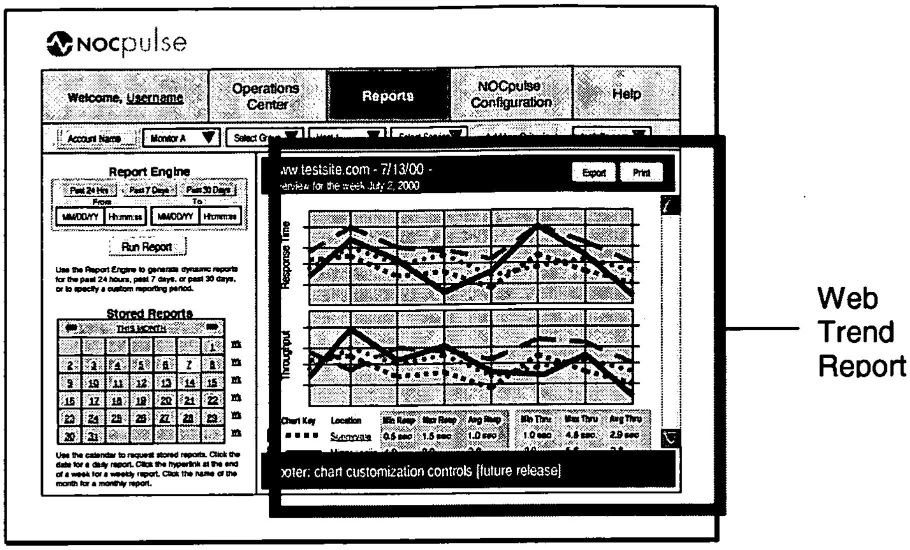
Web Trend Report



Context

This report populates the Display Area when the user selects a URL from the Web drop-down list and (a) clicks a day, week, or month on the calendar or (b) enters a date/time range in the "From" and "To" boxes and clicks the "Run Report button".

Contents

Header	URL	
	Date	
	Report Period	
	Export button	
	Print button	
Line Graphs	Response Time (seconds)	over Report Period (day|week|month|custom)
	Multiple reporting agents on single chart	
	Throughput (k/sec)	over Report Period (day|week|month|custom)
	Multiple reporting agents on a single chart	
Data Table	For each reporting location:	
	Check box	Selects location for custom report
	Color Code	Identifies location line on chart
	Location name	hyperlink to detail chart
	Minimum Response Time	in hundredths of a second
	Maximum Response Time	in hundredths of a second
	Average Response Time	in hundredths of a second

	Minimum Throughput	in k/sec
	Maximum Throughput	in k/sec
	Average Throughput	in k/sec
Footer	Customization controls	[future phase] Scale y-axis to clip spikes other custom views

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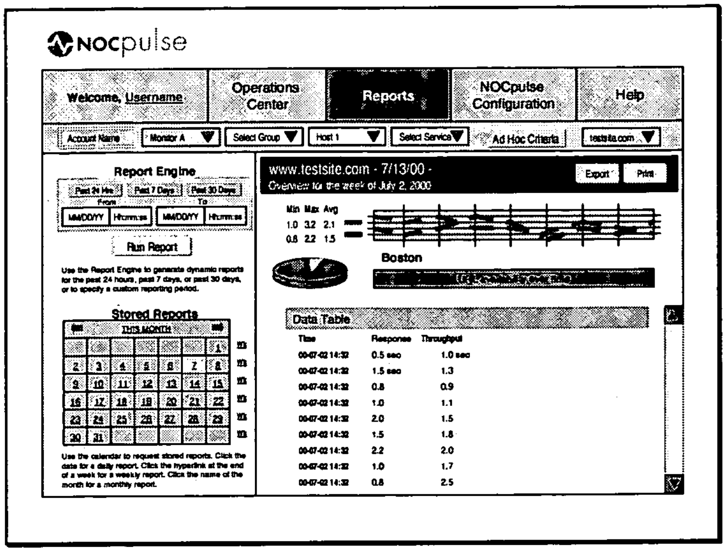
Web Agent Report



Context

This report populates the Display Area when the user drills down on a reporting agent from the Web Trend Report.

Contents

Header	URL Date Report Period Export Button Print button
Line Graph	Response time over reporting period Throughput over reporting period
Min/Max/Avg Table	Minimum, Maximum, and Average response times over reporting period Minimum, Maximum, and Average throughput over reporting period
Availability Pie	Up, Down, Unreachable percentages
Availability Table	Up, Down, Unreachable percentages & color key
Response Time Table	Date & Time Stamp, Response Time, Throughput

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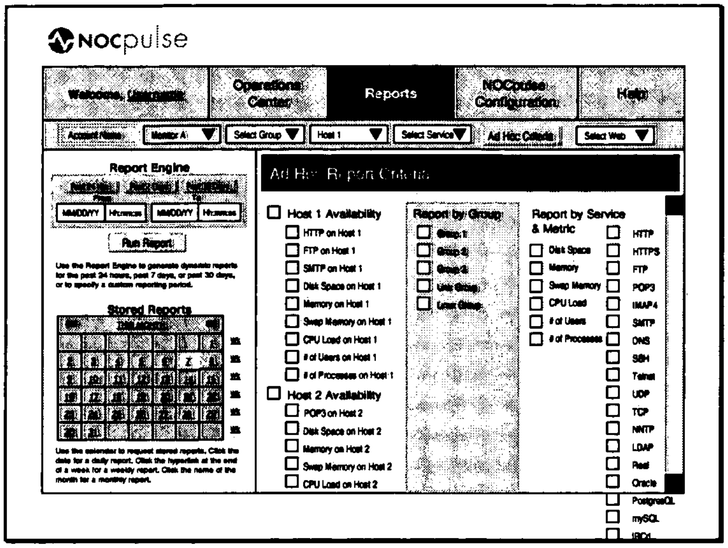
Ad Hoc Criteria Form



Context

The user clicks the Specify Criteria button in the Time Specification panel. The Ad Hoc Report Criteria form appears in the Display Area.

Contents

Header	Page Title	
Host Checklist	Host Accesibility Host Services	checkbox for each host on monitor checkbox for each service on each host
Group Checklist	Group List	checkbox for each group on monitor
Service Checklist	Network Services Internal Metrics	checkbox for each network service checkbox for each internal metric

Form Interaction

Action	*Result*
1. Check item(s) on Host list	Select item(s) for inclusion on report
2. Check item(s) on Group list in selected group	Automatically checks boxes for all hosts & services
3. Check item(s) on Service list on all available hosts	Automatically checks boxes for selected service(s)
4. Uncheck item	Deselects item; will not be included in report

Issues

Save Report Criteria	Affordance of a capability to save ad hoc queries would be desirable. Coding issues for save capability? Will also require a selection mechanism for saved criteria sets

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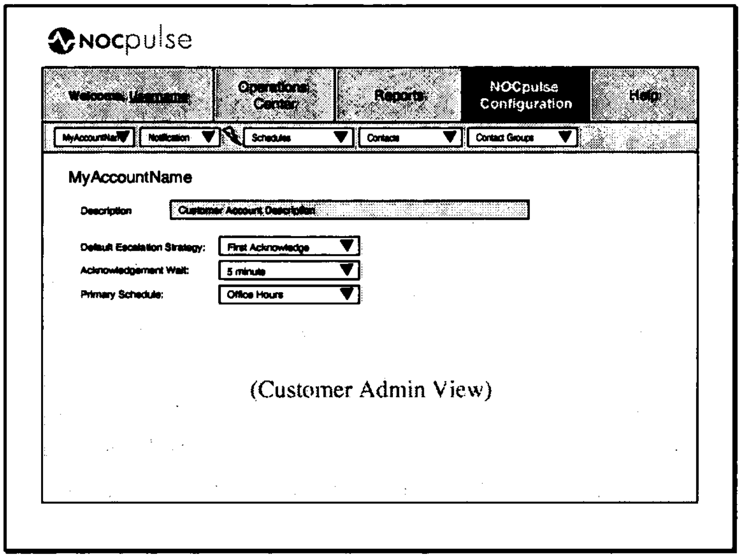
Configuring Notifications (Telamon)

This section describes the user interface for the notification configuration functionality of the NOCpulse IOSS.



Context (Permission: **NP Admin, Customer Admin**)

This screen displays in the work area when you select "Configure Notifications" from the Select Function list.

Contents

Local Navigation Bar	Account Name	CUSTOMERS: read-only display NOCPULSE: selection list of all accounts
	Function	Set to Configure Notifications
	Schedules	Selection list
	Contacts	Selection list, filtered by account
	Contact Groups	Selection list, filtered by account
Page Header	Same as Configure Monitoring page	
Form Fields	Same as Configure Monitoring page	

Navigation Interaction

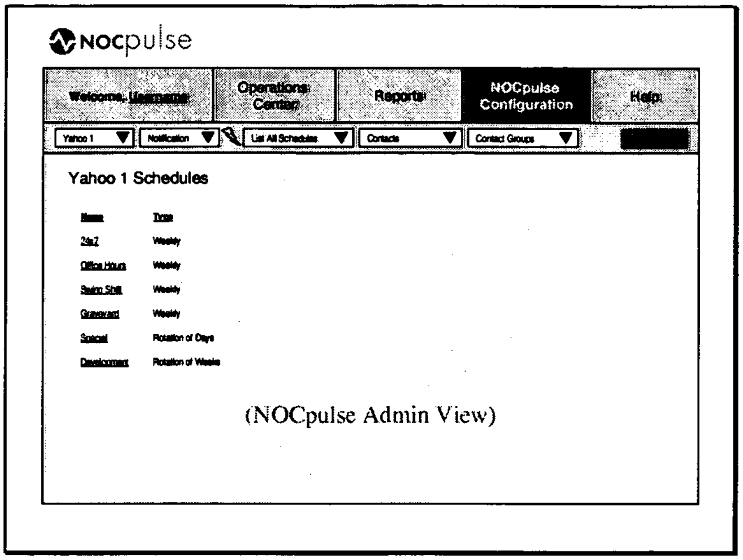
Action	*Result*
1. Select a schedule from list	Displays selected schedule in the Schedule form in Work Area "List All" option displays a list of all schedules NP ONLY: "Create New" option displays blank form
2. Select a contact from list	Displays selected contact record in the Contact form "List All" option displays a list of all contacts "Create New Contact" option displays a blank form

3. Select a contact group from list	Displays Contact Group form with data for selected group "List All Groups" option displays a list of all contact groups "Create New Group Option" option displays a blank form

Account Form Interaction

Same as Configure Monitoring page

Schedule List



Context

The Schedule List screen displays when the user selects "List All Schedules" from the Schedule selection list.

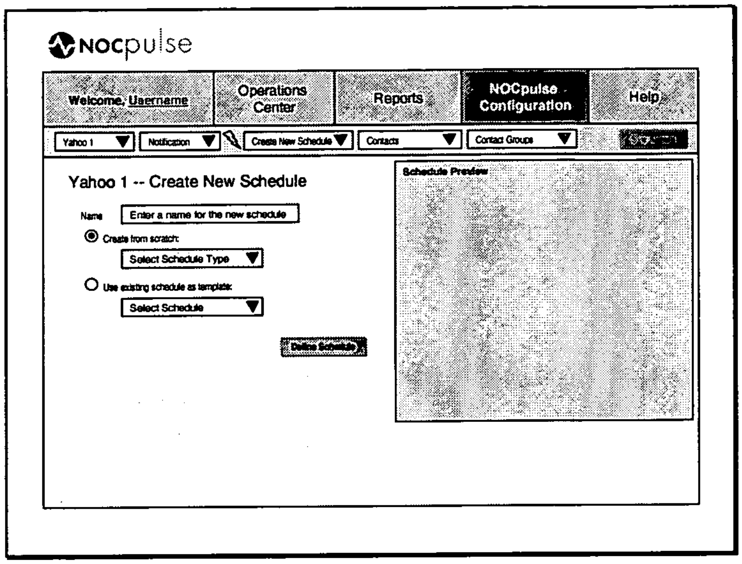
Contents

Page Header	(Account Name) + Schedules	
Schedule List	Schedule Name	hyperlink to record
	Schedule Type	read-only display

Interaction

	Action	*Result*
1.	Click Schedule Name hyperlink	Displays Schedule form with selected schedule data

Create New Schedule



Context

This screen displays when the user selects the "Create New Schedule" option from the Schedule selection list.

Contents

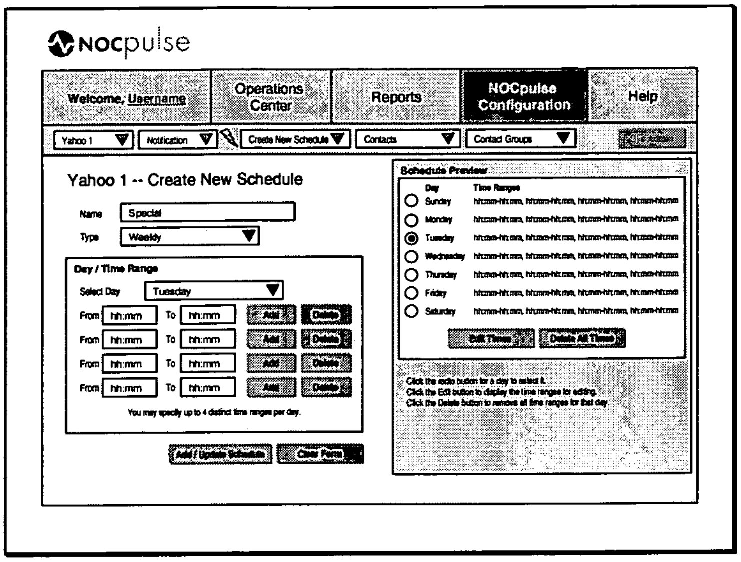
Define Schedule Form	Name	Editable text field
	Create from scratch	Radio button
	Select Schedule Type	Drop-down list
	Use schedule as template	Radio button
	Select Schedule	Drop-down list
	Define Schedule	Submit button

Interaction

Action	Result
1. Enter text in Name field	defines name for schedule
2. Click radio button	specifies whether user wishes to create a schedule from scratch or use an existing schedule as a template
Create from scratch	requires the user to select from 3 types: Weekly, Rotation of Days, Rotation of Weeks
Use schedule as template	allows the user to select from a list of pre-defined schedules; a copy of the selected schedule opens without a name in the appropriate schedule form
3. Select list option	specifies a schedule type or a template to be used specified form loads in Work Area when user clicks

	Define Schedules button automatically activates the associated radio button if neither button has been selected previously
4. Click Define Schedules button	Displays Schedule form for selected schedule or schedule type

Weekly Schedule Form



Context

This form displays when the user selects "Weekly" from the Schedule Type drop-down list and clicks Define Schedule.

Contents

Page Header	(Account Name) + Create New Schedule	
	Schedule Name	Text field
	Schedule Type	Drop-down list
Day/Time Range	Day	Drop-down list
	From	Text field, format hh:00
	To	Text field, format hh:00
	Add | Delete	buttons
Add/Update Schedule	Submit button	
Clear Form	Reset button	
Schedule Preview	7 days	radio buttons
	Edit Times	button
	Delete All Times	button

Interaction

Action	*Result*
1. Select Day	Name displays in Name field
2. Enter time ranges	Enter up to four ranges per day
3. Click Add or Delete	Adds or deletes time range
4. Click Add/Update Schedule	Commits changes to database
5. Clear Form	Clears all fields, including Name and Schedule Type

6. Click radio button in Preview	Selects day for editing
7. Click Edit Times	Displays selected day in Day/Time Range form
8. Click Delete All Times	Deletes all times for selected day

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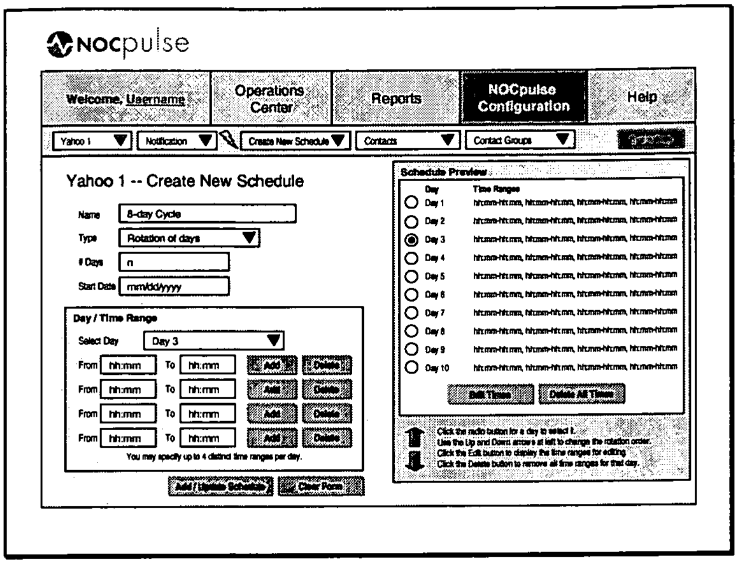
Rotation of Days Schedule



Context

This form displays when the user selects "Rotation of Days" from the Schedule Type drop-down list and clicks Define Schedule.

Contents

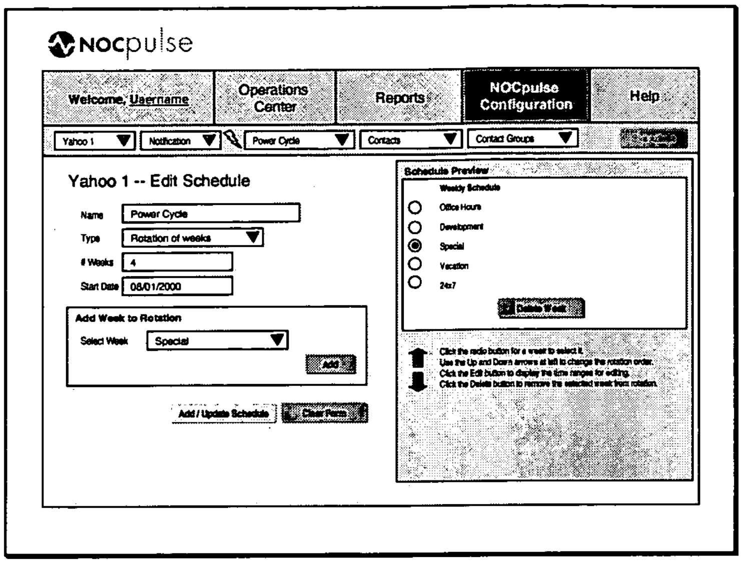
Page Header	(Account Name) + Create New Schedule	
	Schedule Name	Text field
	Schedule Type	Drop-down list
	# Days	Editable Text field
	Start Date	Text field, format dd/mm/yyyy
Day/Time Range	Day	Drop-down list
	From	Text field, format hh:00
	To	Text field, format hh:00
	Add | Delete	buttons
Add/Update Schedule	Submit button	
Clear Form	Reset button	
Schedule Preview	*n* days	radio buttons
	Edit Times|Delete All Times	buttons
	Up | Down	arrows

Interaction

Action	*Result*
1. Enter number of days	defines number of days in rotation
2. Enter start date	Editable text field
3. Select Day	Name displays in Name field
4. Enter time ranges	Enter up to four ranges per day
5. Click Add or Delete	Adds or deletes time range
6. Click Add/Update Schedule	Commits changes to database

7. Clear Form	Clears all fields, including Name and Schedule Type
8. Click radio button in Preview	Selects day for editing
9. Click Edit Times	Displays selected day in Day/Time Range form
10. Click Delete All Times	Deletes all times for selected day
11. Click Up or Down arrows	Move selected day up or down in rotation order

Rotation of Weeks Schedule



Context

This form displays when the user selects "Rotation of Weeks" from the Schedule Type drop-down list and clicks Define Schedule.

Contents

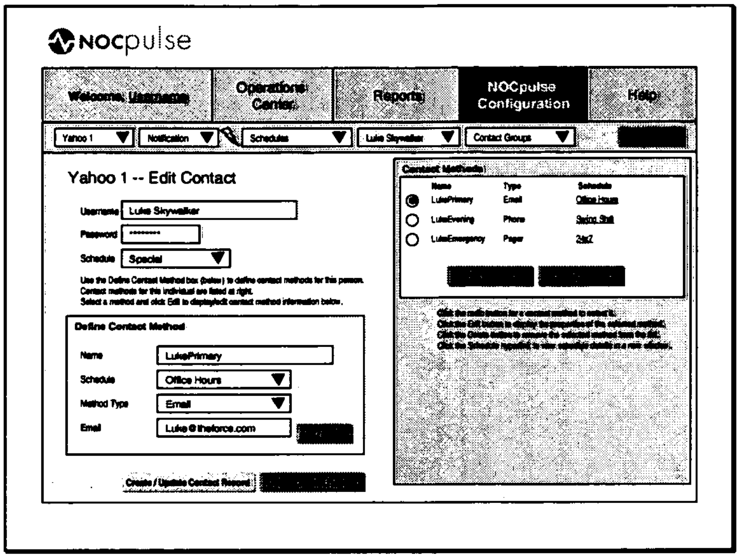
Page Header	(Account Name) + Create New Schedule	
	Schedule Name	Text field
	Schedule Type	Drop-down list set to Rotation of Weeks
	# Weeks	Editable Text field
	Start Date	Text field, format dd/mm/yyyy
Add Week to Rotation	Select Week	Drop-down list
	Add	button
Add/Update Schedule	Submit button	
Clear Form	Reset button	
Schedule Preview	Defined weeks	radio buttons
	Delete Week	button
	Up | Down	arrows

Interaction

	Action	*Result*
1.	Select Week	Selects defined weekly schedule for inclusion in rotation
2.	Click Add	Adds selected weekly schedule to rotation order
3.	Click Add/Update Schedule	Commits changes to database
4.	Clear Form	Clears all fields, including Name and Schedule Type
5.	Click radio button in Preview	Selects Week for editing
6.	Click Delete Week	Deletes selected week from rotation

7. Click Up or Down arrows — Moves selected week up or down in the rotation order

Contact Form



Context

(Permission: **NP Admin, Customer Admin**)

This form displays in the work area when the user selects a contact from the drop-down list or selects the "Add Contact" option on the list.

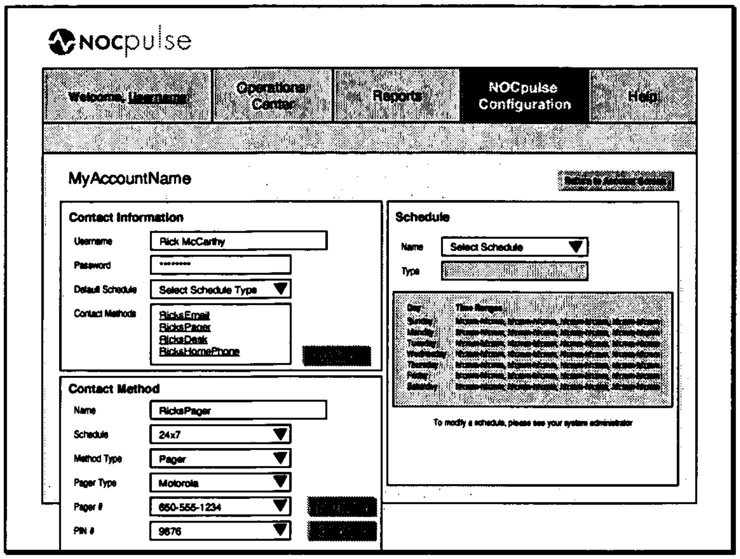
Contents

Header	(Account Name) + Edit Contact Update Confirmation Message	
Contact Form	User name	Editable text field
	Password	Editable text field
	Schedule	Selection list
	Add Contact	Submit button
	Delete Contact	Button
Define Method	Name	Editable text field
	Schedule	Selection list
	Method Type	Selection list
	Parameters	Text fields or selection lists filtered by Method Type
	Add Method	Submit button
Contact Method List	Radio buttons	Defined Contact Methods
	Edit Method | Delete Method	Buttons

User Form Interaction

	Action	*Result*
1.	Enter text, select options from lists	
2.	Click Add/Update Contact button	Updates record and displays confirmation message in header
3.	Click Delete Contact button	Deletes selected record
4.	Click Add Method button	Adds method to Contact Method list
5.	Click radio button	Selects contact group for editing
6.	Click Edit Method button	Displays selected method for editing
7.	Click Delete Method button	Deletes selected method

User Account Screen



Context

(Permission: **Customer** -- limited permission for all users to edit contact info)

This form displays in the work area when you drill down on a username hyperlink, select a contact from the drop-down list, or select the "Add Contact" option on the list.

Contents

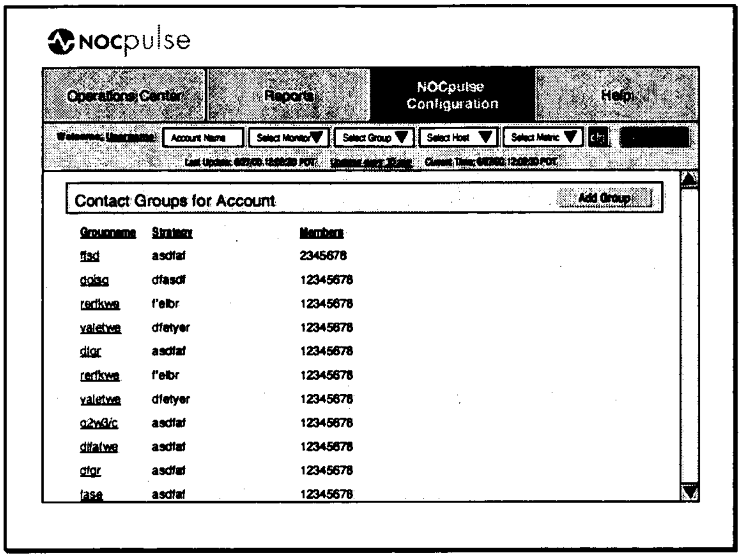
Header	(Account Name)	
	Update Confirmation Message	
Contact Form	User name	Editable text field
	Password	Editable text field
	Schedule	Selection list
	Contact Methods	Hyperlink list
	Update	Submit button
Define Method	Name	Editable text field
	Schedule	Selection list
	Method Type	Selection list
	Parameters	Text fields or selection lists, filtered by Method Type
	Add Method	Submit button
	Clear Form	Reset button
Schedule Display	Select Schedule	Selection list
	Schedule	Read-only display

User Form Interaction

	Action	*Result*
1.	Enter text in Name field	Update Contact Name
2.	Enter/Confirm Password	Defines password for Contact
3.	Click change password checkbox	Displays Change Password fields Enter Old PW, Enter New PW, Confirm New PW
4.	Select Schedule from list	Defines default schedule for Contact
5.	Click Contact Method hyperlink	Displays method details in Define Method form

6. Enter text or select list options — Define or edit a Contact method
7. Click Add/Update Method — Updates database
8. Click Delete Method button — Deletes selected method from database
9. Select Schedule from list in Schedule Display panel — Displays selected schedule
10. Click Return button — Returns user to the screen from which they accesses this form

Contact Group List



Context (Permission: **NP Admin, Customer Admin**)

This page displays when you select the "List Contact Groups" option in the Contact Group selection list.

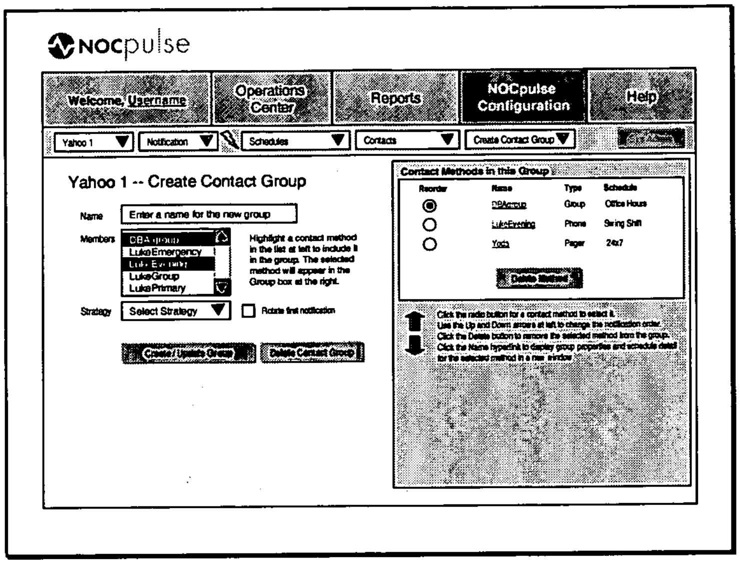
Contents

Header	(Account Name) + Contact Groups Add Group button	
Contact Group List	TBD based on Telemon data; probably something like this:	
	Groupname	hyperlink
	Description	read-only display
	Contacts	read-only display

Contact Group List Interaction

Action	*Result*
1. Click Add Group button	Displays blank Contact Group Form in the work area.
2. Click groupname hyperlink data for selected group	Displays Contact Group Form in the work area with

Contact Group Form



Context (Permission: **NP Admin, Customer Admin**)

This form displays in the work area when you drill down on a contact group hyperlink, select a contact group from the list, or select the "Add Group" option in the list.

Contents

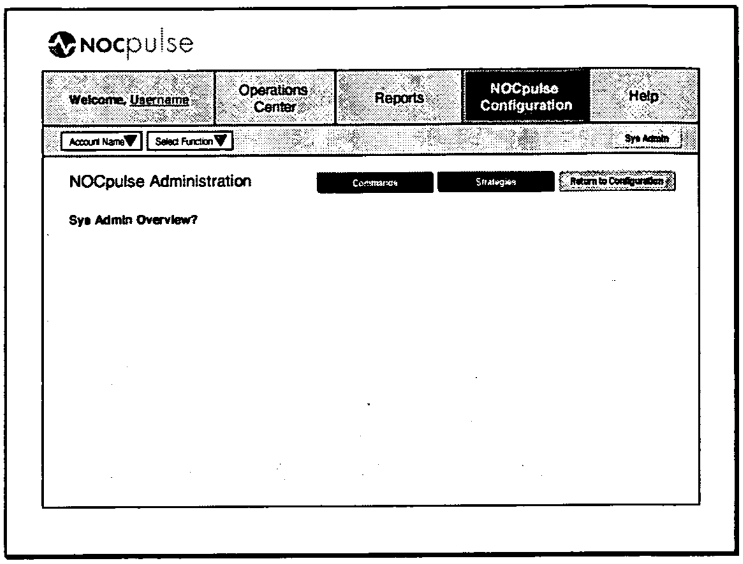
Header	Contact Group Name Update Confirmation Message	
Group Form	Name Select Members Select Strategy Rotate First Notification Create | Delete	Text field Selection list Drop-down list Check box Buttons
Methods in Group	Radio buttons Group Name Delete Method Up | Down arrows	Each method in group hyperlink Button

Contact Group Form Interaction

Action	*Result*
1. Enter text, select options from lists	
2. Click Create/Update button	Saves Contact Group record and displays confirmation message in header
3. Click radio button	Selects Contact Method for editing
4. Click Group Name hyperlink	Displays group information in Group form

5. Click Delete button	Deletes selected group
6. Click Up or Down arrows	Move selected group up or down in group order

System Administration



Context

Authorized NOCpulse users will have a Sys Admin button on their Configuration Nav Bar. When the NOCpulse user clicks the Sys Admin button, the Administration screen will provide buttons to edit Commands or Strategies.

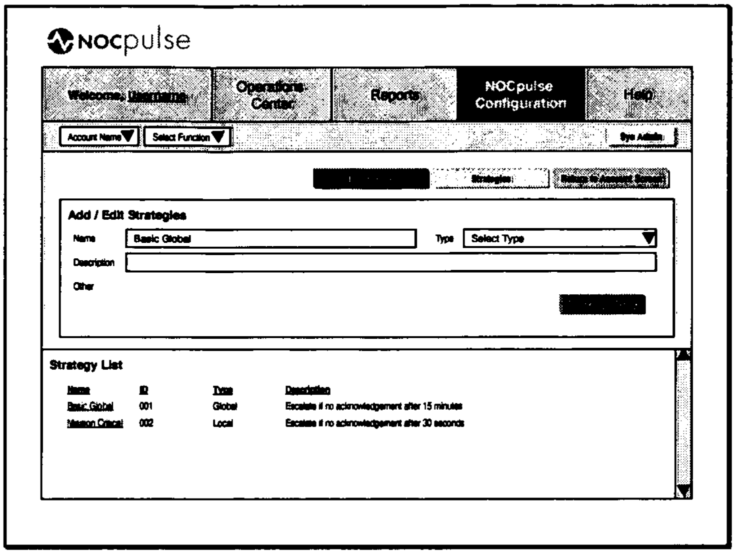
Contents

Page Header
Introduction/Instructional Text
Commands Button
Strategies Button
Return Button

Interaction

Action	Result
1. Click the Commands button	Displays the Command screen
2. Click the Strategies button	Displays the Strategies screen
3. Click the Return button	Returns the user to Configuration main page

Strategies Form



Context (Permission: **NP Admin only**)

This page displays in the work area when a NOCpulse administrator clicks the "Strategies" button on the System Administration screen.

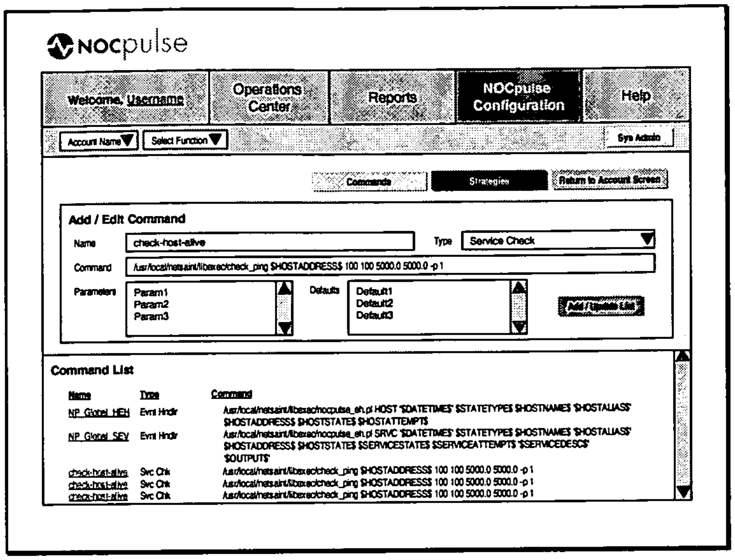
Contents

Sub Nav Buttons	Commands	
	Strategies	Disabled
	Return to Config Main Page	
Add/Edit Strategy	Strategy Name	text field
	Type	selection list
	Strategy	text field
	Add Strategy	Submit button
Strategy List	Strategy Name	hyperlink
	ID #	unique ID
	Type	read-only text
	Description	read-only text

Strategy Interaction

	Action	*Result*
1.	Enter/edit text in Name field	Defines name for Strategy
2.	Select Type from drop-down list	Identifies Strategy Type
3.	Enter strategy in Strategy field	Defines Telemon Strategy
4.	Click Add Strategy	Adds Strategy to list
5.	Click Strategy Name hyperlink	Displays Strategy data in Add/Edit box

Commands Form



Context (Permission: **NP Admin**)

This page displays in the work area when a NOCpulse administrator clicks the "Commands" button on the System Administration screen.

Contents

Sub Nav Buttons	Commands	Disabled
	Strategies	
	Return to Config Main Page	
Add/Edit Command	Command Name	text field
	Type	selection list
	Command	text field
	Parameters	selection list
	Defaults	selection list
	Add Command	Submit button
Command List	Command Name	hyperlink
	ID #	unique ID
	Type	read-only text
	Description	read-only text

Command Interaction

Action	*Result*
1. Enter/edit text in Name field	Defines name for Command
2. Select Type from drop-down list	Identifies Command Type

3. Enter Command in text field	Defines Command
4. Select Parameters	
5. Select Defaults	
6. Click Add Command	Adds Command to list
Click Command Name hyperlink	Displays Command data in Add/Edit box

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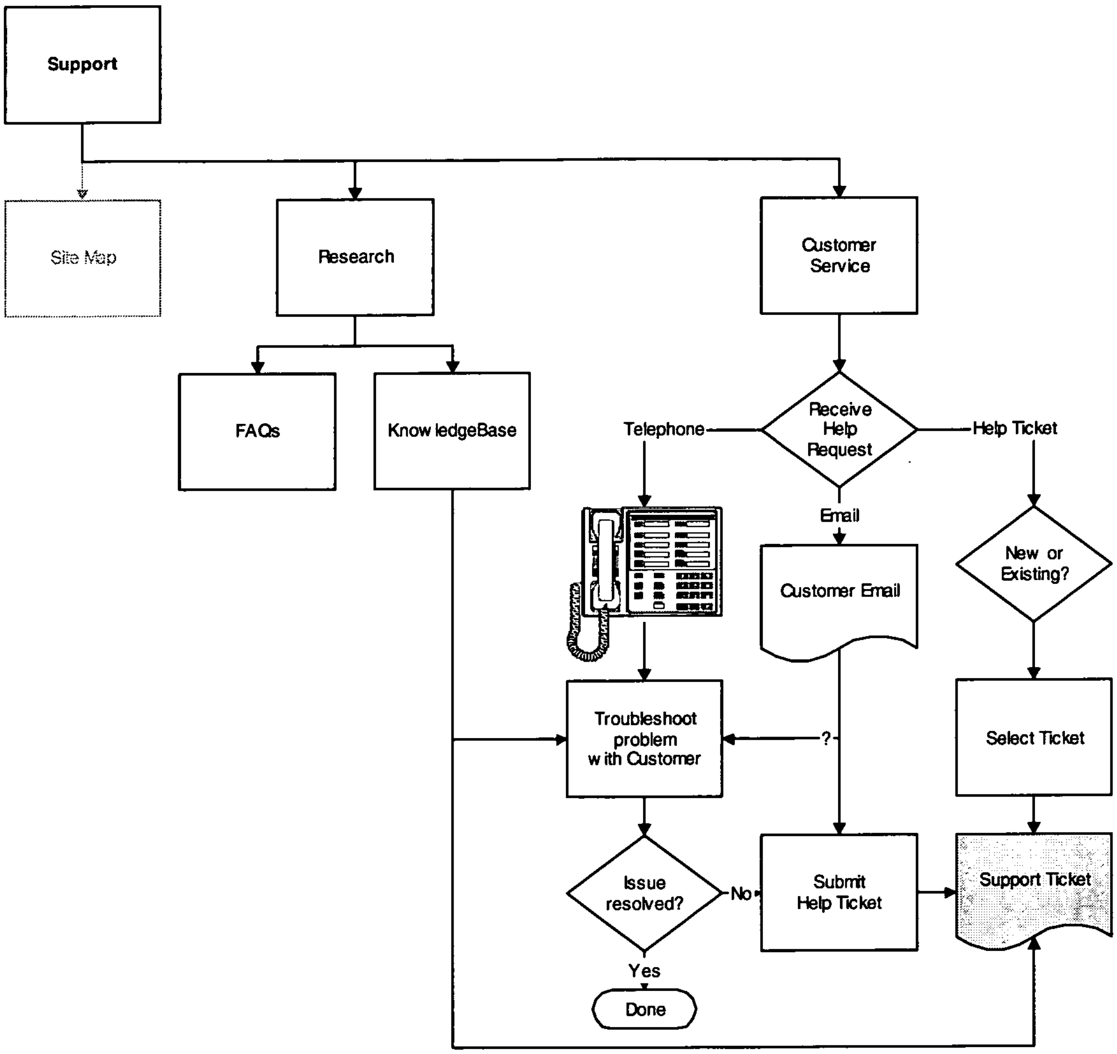
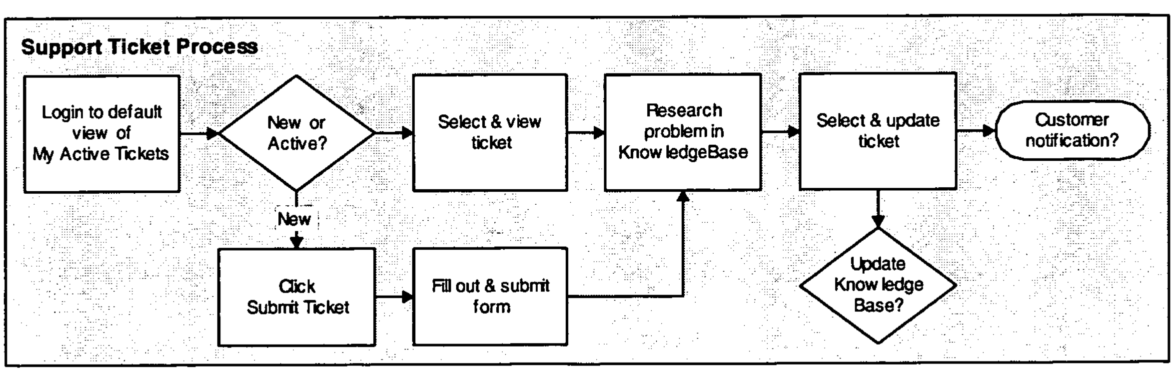
Help Desk Workflow





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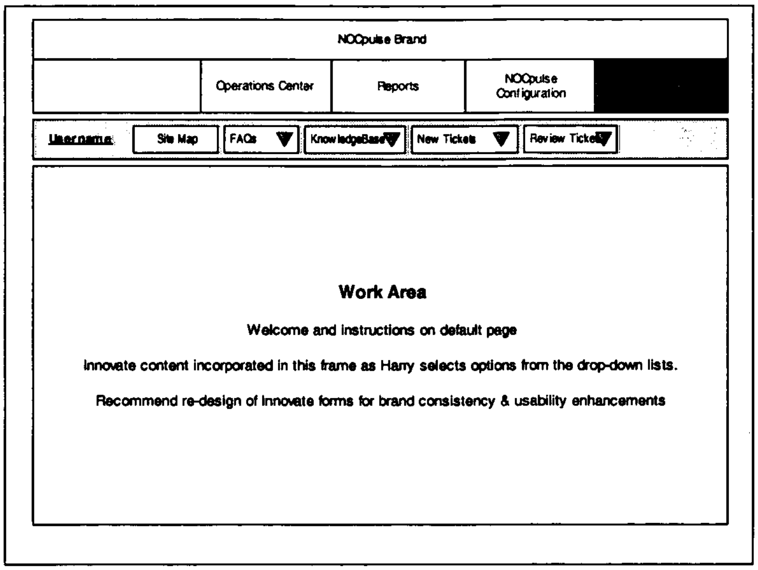
Help Desk Interface



Context (Permission: **Help Desk Staff**)

This page displays when a NOCpulse user with staff-level permissions clicks the support tab.

Contents

Primary Navigation	Standard NOCpulse navigation	
Secondary Nav Bar	Username	Hyperlink
	Site Map	Button
	FAQs	Drop-down list
	KnowledgeBase	Drop-down list
	New Ticket	Drop-down list
	Review Ticket	Drop-down list
Work Area	Defaults to Welcome/Instructions screen	
	Variable display of Innovate content based on secondary navigation	

Interaction

	Action	*Results*
1.	Select from FAQs list	List All FAQs: **Find FAQ Results Window** (Innovate form) Find FAQs: **Find FAQ Window** Create New Entry: **Create FAQ Window**
2.	Select from KnowledgeBase list	Search KnowledgeBase: **KnowledgeBase Search Window** Create New Entry: ?

3. Select from New Ticket list	Submit Ticket: **Find User Profile for Ticket Window** Claim Ticket: **Find Tickets to Claim Window** List New Tickets: **Look-Up Ticket(s) Results Window**
4. Select from Review Ticket list	List All My Active Tickets: **Look-Up Ticket(s) Results** List All My Tickets: **Look-Up Ticket(s) Results Window** List All Active Tickets: **Look-Up Ticket(s) Results Window** Find Ticket: **Look-Up Ticket(s) Window**